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Report from Multidisciplinary Research
Conference on Poverty and Distribution
Oslo, November 16–17, 1992

Part 2
Parallel Session 1
Approaches to the Study of Poverty
Subjective and Objective Indicators

CENTRAL
BUREAU
OF STATISTICS
OF NORWAY

FORORD

I denne serien samles notater innen feltet befolkning og levekår som har krav på en viss allmenn interesse, men som ikke presenterer avsluttede arbeider. Det som presenteres vil ofte være mellomprodukter på vei fram mot en endelig artikkel eller publikasjon, eller andre arbeider som forfatteren eller avdelingen er interessert i en viss spredning av og å få kommentert. Når de er ferdig bearbeidet, vil noen av arbeidene bli publisert i andre sammenhenger.

Synspunktene som presenteres er forfatterens egne, og er ikke nødvendigvis uttrykk for for SSBs oppfatning.

PREFACE

This series contains papers within the field of population and living conditions. The papers are expected to be of some general interest, and presents work in progress, or other notes worth a limited distribution.

The views expressed in this paper are those of the author(s) and do not necessarily reflect the policies of the Central Bureau of Statistics of Norway.



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Report
from
Multidisciplinary Research Conference
on
Poverty and distribution

Oslo, November 16-17, 1992

Parallel session 1
Approaches to the study of poverty. Subjective and objective indicators

November 16th and 17th 1992 the Central Bureau of Statistics, Norway arranged a multidisciplinary research conference on poverty and distribution in Oslo.

The aim of the conference was

- * to present and discuss various approaches and methods in the study of poverty and distribution,
- * to present and discuss results of Norwegian and foreign investigations of the scope of poverty, its distribution and development, its causes and remedies, and
- * to identify relevant areas for research on poverty in Norway and other countries.

Researchers from more than twenty countries participated. The conference partly consisted of plenary lectures and discussions, and partly of parallel sessions where individual participants had the opportunity to present and discuss their own papers.

The conference report includes the lectures of the main speakers and the papers presented at the the conference, and consists of seven issues of Working papers from Department for Statistics on Individuals and Households. The first one includes the lectures given in the plenary sessions, while the others includes the papers from each of the parallel sessions:

- 1 Plenary lectures
- 2 Paralell session 1. Approaches to the study of poverty. Subjective and objective indicators of poverty.
- 3 Parallel session 2. Income and consumption. Distribution and poverty.
- 4 Parallel session 3. Who are the poor? Comparisons between groups and countries.
- 5 Parallel session 4. Poverty - development and duration.
- 6 Parallel session 5. The welfare state, distribution policy and poverty.
- 7 Parallel session 6. Less developed countries: Who are the poor, where are they located and why are they poor?

Programme

November 16th:

- 10.30 - 10.45 Opening
- 10.45 - 11.45 Prof. Jonathan Bradshaw, University of York, Britain:
Why and how do we study poverty in industrialized western countries.
Various approaches to the study of poverty. Lecture and plenary discussion.
- 11.45 - 12.45 Lunch
- 12.45 - 13.45 Prof. Bernard M.S. van Praag, Erasmus University, Netherlands:
How poor are the poor? Relative and absolute poverty. Subjective and objective indicators of poverty.
- 13.45 - 14.00 Pause
- 14.00 - 15.00 Prof. Lee Rainwater, Harvard University USA:
Who are the poor? The distribution of poverty. Comparisons between various groups and various countries.
- 15.00 - 15.15 Pause/coffee
- 15.15 - 17.15 Parallel sessions with presentations and discussions of contributed papers.
- 17.15 - 18.15 Prof. Greg Duncan, Ann Arbor, USA:
Poverty's development and duration. Panel studies.
- 19.30 Get-together
- 20.00 Festive dinner

November 17th:

- 08.45 - 11.00 Parallel sessions with presentations and discussions of contributed papers.
- 11.00 - 11.15 Pause/coffee
- 11.15 - 12.15 Prof. Stein Ringen, University of Oxford, Britain:
The welfare state, distribution policies, and poverty. Analyses of measures and policies to combat poverty.
- 12.15 - 13.15 Lunch
- 13.15 - 14.30 Presentation of International Research and statistical Programmes on Poverty.
- 14.30 - 14.45 Pause
- 14.45 - 15.45 Panel discussion: Challenges and possibilities facing poverty research focusing on data requirements.
- 15.45 - 16.00 Conclusion and closing led by a representative of the Central Bureau of Statistics.

RESEARCH CONFERENCE ON POVERTY AND DISTRIBUTION
OSLO, NOVEMBER 16-17, 1992

Parallel session 1

Approaches to the study of poverty. Subjective and objective indicators of poverty.

Session leader: Dr. philos Lars Gulbrandsen, INAS, Norway

Mr. Karel Van den Bosch, UFSIA, Belgium: Poverty and Social Security in Seven Countries and Regions of the E.C.

Prof. John Veit-Wilson, Dept. of Applied Social Science, England: Confusions between Goals and Methods in the Construction & Use of Poverty Lines.

Mr. Arne S. Andersen and mr. Jan Lyngstad, Central Bureau of Statistics, Norway: Payment problems or poverty? Norwegian households 1987 - 1991.

RESEARCH CONFERENCE ON POVERTY AND DISTRIBUTION
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Parallel session 2.

Income and consumption. Distribution and poverty.

Session leader: Mr. Ib Thomsen, Central Bureau of Statistics,
Norway.

Mr. Thor Olav Thoresen, Central Bureau of Statistics, Norway: Child
Care Subsidies and Effect on Distribution.

Ms. Hilde Bojer, Department of Economics, University of Oslo,
Norway: Gender, occupational status and income inequality in
Norway.

Prof. Leif Nordberg and Rec.ass. Markus Jäntti, Åbo Akademi
University, Finland: Statistical inference and the measurement
of poverty.

Dr. Jolanda van Leeuwen, Erasmus University Rotterdam, The
Netherlands: The Leyden Poverty Line when Prices are Income-
Dependent. Abstract

Dr. Jørgen Aasness and Ms. Jing Li, Central Bureau of Statistics,
Norway: A microsimulation model of consumer behavior for tax
analysis. Abstract

Mr. Ib Thomsen and Mr. Dinh Quang Pham, Central Bureau of
Statistics, Norway: An application of latent Markov models to
estimate response errors from repeated surveys.

RESEARCH CONFERENCE ON POVERTY AND DISTRIBUTION
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Parallel session 3.

Who are the poor? Comparisons between groups and countries.

Session leader: Ms. Gunvor Iversen, Central Bureau of Statistics,
Norway.

Dr. A. Jan Kutylowski, Poland: Distribution of subjective income
deprivation in Poland 1981 -1990.

Ms. Iulie Aslaksen, Central Bureau of Statistics, Norway and ms.
Charlotte Koren, INAS, Norway: A women's perspective on
poverty: Time use, income distribution and social welfare.

Dr. Björn Gustafsson, Göteborg University, Sweden and Dr. Ludmilla
Nivorzhkina, Rostov University, Russia: Relative Poverty in
two egalitarian societies. A comparison between Taganrog,
Russia during the Soviet era and Sweden.

Mr. Lars B. Kristoffersen, NIBR, Norway: Social Indicators of Child
Poverty.

Ms. Randi Kjeldstad, Central Bureau of Statistics, Norway: Pre
valence and Change in Low Income among Male and Female Singles
and Lone Parents in Norway through the Nineteen Eighties.

Mr. Børge Strand, Central Bureau of Statistics, Norway: Regional
location of Poverty in Norway.

Dr. Hans de Kruijk, Erasmus University, The Netherlands: Location
of poverty in Pakistan.

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Parallel session 4.

Poverty - development and duration.

Session leader: Dr. Kari Skrede, INAS, Norway.

Dr. R. Muffels, Tilburg University, The Netherlands: The Evolution of poverty according to objective and subjective standards.

Mr. Kjell Jansson, Statistiska Centralbyrån, Örebro, Sweden: Low income per year is not enough to measure poverty.

Prof. Dr. Bea Cantillon, UFSIA, Belgium: The "zero-sum crisis": the stability in the distribution of income and welfare in a period of economic crisis.

Mr. Jon Epland and Mr. Leif Korbøl, Central Bureau of Statistics, Norway: Duration of Poverty in Norway in the 1980s. Some longitudinal results from the Norwegian socio-economic panel (NSP)

RESEARCH CONFERENCE ON POVERTY AND DISTRIBUTION
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Parallel session 5.

The welfare state, distribution policy and poverty.

Session leader: Mr. Knut Halvorsen, NKSH, Norway.

Dr. Ivar Lødemel, FAFO, Norway: European Poverty Regimes.

Dr. Jørgen Elm Larsen, The Danish Equal Status Council, Denmark:
Poverty debate and poverty research in Denmark.

Mr. Tapio Salonen, Sosialhögskolan, Sweden: Social assistance in
a longitudinal perspective.

Mr. Sven-Åke Stenberg, Swedish Institute for Social Research,
Sweden: Welfare Dependence in the Welfare State: A Cross-
Generational Study in Post-War Sweden.

Dr. Lutz Leisering and Dr. Wolfgang Voges, Bremen University,
Germany: Poverty produced by the welfare state. An application
of longitudinal analysis.

Mr. Peter Whitesford, University of York, United Kingdom: Assessing
the Impact of Anti-Poverty Policies: - the Australian
Experience

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Parallel session 6.

Less developed countries: Who are the poor, where are they located and why are they poor ?

Session leader: Mr. Bjørn K. Wold, SSB, Norway

Mr. Mohamed Ould Abba, Ministry of Plan, Mr. Sidna Ould N'Dah, National Statistical Office, Mauretania: Le Profil de la Pauvrete en Mauretanie: Questions Conceptuelles, Instruments et Principaux Resultats.

Mr. William Bender and Mr. Simon Hunt, Ministry of Plan, Luanda, UNICEF, Luanda, Food Studies Group, University of Oxford, Angola & Great Britain: Poverty and Food Insecurity in Luanda.

Mr. Christian Grootaert, World Bank, USA: The evolution of welfare and poverty during structural change and economic recession - the case of Cote d'Ivoire 1985-88.

Mr. Wilson Mazimba and Mr. Emmanuel Silanda, Central Statistical Office, Zambia: Some indicators of poverty in Zambia.

Mr. Sidna Ould N'Dah, National Statistical Office, Mauretania: Enquete Permanente sur les Conditions de Vie des Menages en Mauretanie.

Mr. Jeannot Ngbanza and Mr. Perkyss Mbayndoudjim, ECAM, Bangui, Central African Republic: Mesure de la Pauvrete: Les Travaux en Cours en Republique Centrafricaine.

Poverty and Social Security Transfers: Results for Seven Countries and Regions in the EC.

Paper for the Multidisciplinary Research Conference
on Poverty and Distribution,
Oslo, November 16-17, 1992

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1. Introduction

This paper presents comparative results on poverty and social security in seven countries and regions of the European Community (E.C.), using subjective, relative and official poverty lines. Subjective poverty lines are based on judgments of the population about minimum income levels, as expressed in sample surveys. Two specific subjective standards have been applied here, namely the Subjective Poverty Line (SPL) and the Centre for Social Policy (CSP) standard. The relative poverty line used here is defined as 50% of average equivalent household income in each country. The official poverty line is equal to the level of the guaranteed minimum income in social security or social assistance. The countries and regions are Belgium, The Netherlands, Luxembourg, Lorraine (region of France), Ireland, Catalonia (region of Spain) and Greece.

This results in this paper have been collected in a collaborative project by researchers in the participating countries ¹.

¹ The project, called EUROPASS (European Research On Poverty And Social Security), was conducted by research groups from seven countries: Centre for Social Policy (CSP), University of Antwerp (UFSIA), Antwerp, Belgium; Institute for Social Research (IVA), Tilburg, The Netherlands; Centre d'Etude de Populations, de Pauvreté et de Politiques Socio-Economiques (CEPS), Walferdange, Luxembourg; equipe de recherche pour l'Analyse Dynamique des Effets des Politiques Sociales (ADEPS), Université de Nancy II, Nancy, Lorraine; Economic and Social Research Institute

The data are from two consecutive waves of household panel surveys for Belgium (1985-88), Ireland (1987-89), Luxembourg (1985-86), Lorraine (a region of France) (1985-86) and The Netherlands (1985-86), and from cross-sectional surveys for Catalonia (a region of Spain) (1988) and Greece (1988). Table 1.1 gives the sample sizes. Mainly because of larger sample sizes, it was decided to use the following waves for the cross-national comparisons: Belgium: 1985, Netherlands:1986, Luxembourg: 1986, Lorraine: 1986, Ireland: 1987, Catalonia: 1988, Greece: 1988. Although the difference of at maximum three years is unfortunate, the results of the Benelux countries and Lorraine are close together in time. On the other hand, the Irish, Catalan and Greek results deviate so much from those of the other countries (as we will see), that the gap of three years is unlikely to affect the comparative conclusions.

Table 1.1 : Overview of surveys.

| | First wave | | Second wave | |
|-----------------|------------|-----------------|-------------|-----------------|
| | year | size of sample* | year | size of sample* |
| Belgium | 1985 | 6471 | 1988 | 3779 |
| The Netherlands | 1985 | 3405 | 1986 | 4480 |
| Luxembourg | 1985 | 2013 | 1986 | 1793 |
| Lorraine | 1985 | 716 | 1986 | 2092 |
| Ireland | 1987 | 3294 | 1989 | 947 |
| Catalonia | 1988 | 2976 | | |
| Greece | 1988 | 2958 | | |

* Number of households in sample. Only households for which poverty-status could be established have been counted.

(ESRI), Dublin, Ireland; Gabinet d'Estudis Socials (GES), Barcelona; National Center for Social Research (NCSR), Athens, Greece.

The project leaders in the respective countries were: Prof. dr. H. Deleeck (Belgium), R. Muffels, prof. dr. J. Berghman, prof. dr. A. Kapteyn (The Netherlands), prof. dr. G. Schaber (Luxembourg), prof. dr. J.-C. Ray 5 (Lorraine), prof. dr. B. Whelan (Ireland), prof. dr. J. Estivill (Catalonia) and prof. dr. J. Yfantopoulos (Greece).

The Centre of Social Policy at the University of Antwerp coördinated the project. Funding was provided by the Commission of the EC, within the framework of the Second Community Action Programme to Combat Poverty, and by national funding. A full report of the study is contained in Deleeck, Van den Bosch, De Lathouwer (1992).

Though the exact definitions of the concept of household are not the same in all countries (cf. Deleeck, Van den Bosch, De Lathouwer, 1992, appendix C), they all boil down to the following: a group of related or unrelated persons who live in the same dwelling and share meals and/or a common budget. Probably the greatest difference occurs in the treatment of students who live in rooms, but come home regularly. In the Netherlands and Lorraine they are regarded as separate households; in the other countries they are treated as members of their parents' household.

The income concept in this paper is disposable household cash incomes i.e. it includes social security transfers, and is net of taxes and social security contributions. Income in kind is not included. For Lorraine, however, the income measure is household income before government taxes, but excluding social security contributions.² The household income variable has been built up from the answers to detailed questions about all possible sources of income of all persons in the household.

All income amounts in this paper are monthly amounts. The original income questions asked for weekly, monthly or yearly amounts, as seemed most appropriate in each country and for the kind of income concerned (e.g. yearly for interests, monthly for salaries). In many instances, the respondent could choose between several reference periods. All amounts have been recalculated to a monthly base, as this seemed to be the most common denominator. For more details on the income variables, we refer to Deleeck, Van den Bosch, De Lathouwer (1992, Appendix C).

Compared with yearly income, monthly income is more subject to temporary fluctuations. It is therefore to be expected that a larger number of poor households will be counted on a monthly basis, but the magnitude of this effect is hard to assess. Which time period is the most appropriate is a difficult matter. Atkinson (1974, p. 45) is of the opinion that for poverty research a short period is more suitable, because at the lower end of the income distribution the scope for averaging income over time may be rather limited.

As in most poverty studies, we assume that the distributions of goods and services within households is such, that either all household members are poor, or none of them. In a separate study, the Luxembourg and Lorraine teams have tried to address the issue of intra-household distribution by distinguishing different income groups within one household. An income group is a subgroup within a household that has its own sources

² The French tax system is so complex, that it does not make sense to ask people for their after-tax incomes, nor is it regarded as feasible to estimate after-tax incomes through micro-simulation.

of income, and that does not fully share its income with the rest of the household (Jeandidier a.o., 1988). In the present paper, however, this line of research is not pursued.

The plan of the paper is as follows. In section 2 the poverty line methods are introduced. Section 3 presents the resulting poverty thresholds in the various countries. In section 4, the incidence of poverty in the population as a whole, as well as in specific subgroups, is compared across countries. This section also looks at the social characteristics (composition) of the poor. The impact of social security transfers on poverty is treated in section 5. Panel (longitudinal) results on poverty are presented in section 6. Section 7 concludes.

2. Poverty Lines

Poverty lines can be set by a variety of methods, which might be divided into budget methods, subjective methods, relative methods and political methods. An overview is provided in Callan and Nolan (1991), who conclude that "each [method] faces formidable problems and objections, at both conceptual and empirical levels", and that "nothing approaching consensus on the measurement of poverty appears to be emerging". Given this situation, the best strategy appears to be to use several methods, so that any conclusions do not depend on a single approach. If several methods are in agreement, however, reasonably robust conclusions may still be drawn.

In the present study, four poverty lines have been applied. These are:

- 1) the "*EC*" *poverty-line*, as defined by O'Higgins and Jenkins (1990) which is an elaboration of the poverty-line used in the first EC-programme against poverty. It is defined as 50% of average equivalent household income for single-person households. The equivalence factors used are 1,0 for the first adult, 0,7 for other adults and 0,5 for children.

The EC-standard is a relative or statistical poverty-line.

The label 'EC' should not be taken to imply that this poverty line has any official status in the European Community.

- 2) the *legal poverty line*, defined as the guaranteed minimum income in social assistance in each country.

Two subjective standards:

- 3) the *CSP-poverty-line*, introduced by the Centre for Social Policy, Antwerp (cf. Deleeck, 1989).
- 4) the *Subjective Poverty Line* (SPL), developed at Leyden University (cf. Goedhart a.o., 1977; Van Praag a.o., 1982; Kapteyn a.o., 1985).

Subjective standards are based on the views of respondents in a sample survey on minimum income needs. The method therefore takes account of the fact that poverty is a socially constructed category, and is not something that can be determined by an outside observer without regard to the circumstances and values in the surrounding society. There are a number of different variants of this method. In some, respondent's views about what income hypothetical families would require to reach various levels of living are obtained (e.g. Rainwater, 1974). This has the disadvantage that people have to make statements about situations with which they may not be familiar. In this study respondents are asked to evaluate their own situation, on which they may be considered the best experts.

Two specific subjective methods are applied. The first method is the one introduced by Goedhart a.o. (1977), which we will call the SPL (Subjective Poverty Line), following Kapteyn, Van de Geer and Van de Stadt (1985). The other method has been developed independently around 1976 by the Centre for Social Policy at Antwerp University (Deleeck a.o., 1980; cf. Deleeck, 1989). Below, it will be referred to as the 'CSP-method'. The related but more complex Leyden Poverty Line (Van Praag, 1971, 1991; Hagenaars, 1986) is not used in this study. (For a methodological comparison of the SPL, the CSP-method and the LPL, see Flik and Van Praag, 1991.)

The SPL is based on survey responses to the Minimum Income Question (MIQ), which reads: "What is the minimum amount of income that your family, in your circumstances, needs to be able to make ends meet?" The answer to this question, y_{\min} , depends on a number of characteristics of the household, of which current household income (y) and household size (fs) are the ones considered most relevant in the present context. Also, these variables have been used most often in previous research (e.g. Goedhart, Kapteyn (1980), though in particular Hagenaars (1986) and De Vos and Garner (1991) have shown that other factors may be important as well. We also follow the literature in specifying a loglinear relationship:

$$\log(y_{\min}) = a + b_1 \log(y) + b_2 \log(fs) \quad (1)$$

This equation can be estimated with ordinary least-squares regression analysis. To derive national poverty lines, income levels $y^*(fs)$, depending on household size, have to be found where the curve defined by equation (1) intersects with the line $y=y_{min}$. Given estimates of a , b_1 and b_2 these levels are calculated by:

$$\log(y^*(fs)) = (a + b_2 \log(fs)) / (1 - b_1) \quad (2)$$

The rationale behind this procedure is as follows. At low incomes, y_{min} will be below y , indicating that households feel they are not able to make ends meet, while at high incomes the reverse is true. At the points where $y=y_{min}$, households are just able to make ends meet. The corresponding income thresholds are then used as poverty lines (cf. Goedhart a.o., (1977), Van Praag, Goedhart, Kapteyn, (1980); De Vos and Garner (1991) question this interpretation.)

The version of the SPL applied here is the most basic one. More advanced models take into account the effects of social reference groups, the ages of children, underestimation of income by the respondent and sample selection bias due to item non-response, cf. Kapteyn, Kooreman and Willemse (1988) and Muffels, Kapteyn, a.o. (1990).

The CSP-standard also uses the Minimum Income Question (MIQ), and in addition the following question: "With your current income, can you get by:

- with great difficulty,
- with difficulty,
- with some difficulty,
- fairly easily,
- easily,
- very easily."

Only the data of households where the respondent answered "with some difficulty" are used in deriving the poverty line. These households are assumed to be living on the margins of poverty, so that both their actual incomes as well as their answers to the MIQ can be regarded as indicators of the poverty line. For each of these households the answer to the MIQ and actual household income are compared, and the lower of the two amounts (y_{low}) is determined. For each type of household (differentiated by size and by age of the household members; see table A1 for a list of frequently occurring types of household). the average of y_{low} is calculated. After elimination of outliers for which y_{low} differs by more than two standard deviations from the average, a new average is computed. If the number of households on which this average is based is sufficiently high (at least 30 per household type), this amount is used as the poverty line for that

particular type of household. For other types of household, the poverty line is calculated by extrapolating from those amounts (see Deleeck, Van den Bosch, De Lathouwer (1992, appendix D) for a more detailed description).

The description of the methods shows that the SPL en CSP-methods are different in technique, but share the same theoretical background (though the theory has been made more explicit for the SPL than for the CSP method). This implies that they are also subject to the same kinds of problems and objections. The most crucial assumption is that words and phrases like "minimum income", "making ends meet" and "with some difficulty" have the same meaning for all respondents. Unfortunately, this assumption would be hard to test. In comparative research there is the further complication that the questions have to be translated into several different languages. In the present project, care has been taken to phrase the income evaluation questions as much as possible in the same way in all surveys.

Another basic assumption is that there is no disagreement within the household regarding its standard of living. The answers of the respondent must correctly reflect the views of all members of the household. The method could, at least in principle, be adjusted to examine to what extent this is in fact the case. (For estimates of the effect of the presence of more than one income group within the household on measures of subjective well-being, see Dickes, 1988.)

Sometimes the subjective poverty lines are claimed to represent a social consensus on the definition of poverty. This, as Callan and Nolan (1991, p. 252) point out, may be somewhat misleading if taken too literally. This is most obvious in the case of the CSP-method, which is based on the answers of only a subgroup in the sample. But in the SPL method as well, the answers of people with incomes well above or well below the poverty lines are treated as if they are in some way biased. One must keep in mind that the answers to the income evaluation questions (the MIQ and the 'getting by' question) are used not so much as if they represent views on a certain social problem, but rather as verbal reactions of households to their own level of economic well-being. At the point in the income scale where the reaction of the average household starts to show that it experiences difficulties, researchers put the poverty line. Therefore, the subjective poverty lines can be regarded as being rooted in the everyday experiences of households trying to make ends meet, without necessarily representing a social or political consensus on the poverty line (which may not exist anyway).

On the other hand, the label 'subjective' should not be interpreted in the sense that its own evaluation decides whether a household is regarded as poor or not. The incomes of households are compared with national poverty lines, which are the result of an averaging process. Therefore, 'intersubjective standards' might be a more appropriate description. For further criticisms on the subjective methods we refer to Walker (1987) and to Callan and Nolan (1991) and references given there.

3. Levels of the Poverty Lines

The results from applying the four poverty line methods are presented and discussed in this section. Table A1, in appendix, shows the income thresholds for a number of household types in the seven countries, expressed in constant European Currency Units (ECUS) of January 1988. Adjustments for differences in price levels between countries have been made using unpublished purchasing power parities for household consumption provided by Eurostat (for further details see Deleeck, Van den Bosch, De Lathouwer, 1992, appendix B).

To compare the results in table A1, I discuss first the overall levels of the poverty lines, and then the equivalence scales.

To represent the overall *level* of a poverty line, we have used the geometric mean of the amounts³ (table 3.1). In all countries, the subjective standards are the most generous ones. The legal standard is below the relative EC-standard, except in The Netherlands. In Catalonia and Greece, no national guaranteed minimum income exists, so the official poverty line is not defined.

Comparing across countries, The EC-standard indicates that there are three groups of countries: Greece and Ireland, where this standard is rather low, the Benelux countries, Catalonia and Lorraine, where it is at an intermediate level, and Luxembourg where it is highest. These positions are of course to a great extent determined by the levels of average household income, but also by average household size.

3 The geometric mean is used, because the proportional difference between two geometric means can be interpreted as the average proportional difference between the two series from which the means are computed. Thus, if the poverty line for families with three children is 10% higher in country B than in country A, this has the same effect as when the single person poverty line is 10% higher. There seems to be no reason to give more weight to the poverty lines for large households, as the arithmetic mean does implicitly. An average measure of level seems preferable to comparing poverty lines for one particular type of household, as the conclusions may depend on the choice of the reference type of household.

Table 3.1: Geometric means of social subsistence minima in ECU in prices of Jan. 1988, monthly amounts.

| | | CSP-standard | SPL-standard | EC-standard | LEGAL-standard |
|--------------|------|--------------|--------------|-------------|----------------|
| Belgium, | 1985 | 767 | 801 | 547 | 457 |
| | 1988 | 803 | 776 | 586 | 481 |
| Netherlands, | 1985 | 694 | 651 | 614 | 692 |
| | 1986 | 708 | 764 | 645 | 681 |
| Luxembourg, | 1985 | 915 | 1093 | 785 | 694 |
| | 1986 | 996 | 932 | 852 | 693 |
| Lorraine, | 1985 | 804 | 865 | 573 | 439 |
| | 1986 | 835 | 855 | 599 | 430 |
| Ireland, | 1987 | 552 | 570 | 418 | 376 |
| | 1989 | 583 | 606 | 436 | 336 |
| Catalonia, | 1988 | 764 | 956 | 552 | |
| Greece, | 1988 | 607 | 669 | 366 | |

The legal standard is below the EC-standard in all countries, except The Netherlands. It appears that the guaranteed minimum income is at least partly relative to the average level of economic welfare. In Catalonia and Greece, no national guaranteed minimum income existed.

The average levels of the subjective poverty lines follow a roughly similar pattern across countries. Nevertheless, the difference between the highest and lowest values is smaller than with the EC-standard, suggesting that the subjective poverty lines are only partly relative. There are some deviations from this general trend. First, the SPL makes a peculiar "jump" in Catalonia. Secondly, the subjective standards are much lower in The Netherlands than in Lorraine and Belgium. The large difference between Belgium and The Netherlands is surprising, given that average household income is about the same in both countries, price differences are small, and there are no indications that the level and kind of government services and non-cash benefits (education, health care) is very different. Language differences do not seem to play a role, as separate results for the Dutch-speaking part of Belgium were not closer to the Netherlands' results.

More surprising, perhaps, than the fluctuations across countries, are the different levels of the SPL and CSP-standards *within* countries. In most countries they are fairly close

together, the SPL being generally somewhat higher (except in Luxembourg), but in Catalonia the SPL is much higher than the CSP-standard. Because the CSP and SPL-standards share the same theoretical background, and use the same empirical material, the differences must be due to the more technical details. A host of factors may be involved, (language differences, varying reliability), but at present we are unable to shed any more light on this problem.

As an indicator of the steepness of the *equivalence scales*, the elasticities of the poverty lines with respect to household size⁴ are used (table 3.2). The equivalence scales of the subjective standards are much flatter than the scale built into the E.C.-standard, which has an elasticity of 0.71. The equivalence scale implicit in the guaranteed minimum incomes also tends to be steeper. This is typical of scales based on subjective income evaluations, as Buhmann a.o. (1988) show in a review of a large number of equivalence scales. However, while they find that the family size elasticities of subjective scales range from 0.12 to 0.36, which a median value of 0.34, in our study the elasticities range from 0.25 to 0.64. The median elasticity for the SPL and CSP poverty lines together is 0.40, which is equal to the median value of the family size elasticities of equivalence scales that have been estimated using consumption expenditure data (Buhmann a.o., 1988, p. 120).

Although there is some variation across countries and across years, the SPL equivalence scale elasticities seem to converge in a reasonably narrow range (0.25 to 0.44). The CSP-method produces scales that are wider apart across countries. In addition, they show some implausibilities in some countries, notably the low factor for single persons in Ireland (51% relative to two-adult households), and the relatively low amounts needed by households with children in The Netherlands, for which there is no substantive explanation.

4 These are estimated using the equation: $\log(\text{poverty line}_i) = a + e \cdot \log(\text{household size}_i) + U_i$, where e is the elasticity of the poverty line with respect to household size, U_i is the error term, and i is a subscript that runs across the types of household mentioned in table 1. For the CSP poverty lines, a dummy variable, indicating whether the head of household is elderly, was added to the equation (results for this term not shown).

Table 3.2: The steepness of the equivalence scales: elasticities of poverty lines with respect to household size.

| | | CSP-standard | SPL-standard | EC-standard | LEGAL-standard |
|--------------|------|--------------|--------------|-------------|----------------|
| Belgium, | 1985 | 0.40 | 0.27 | 0.71 | 0.42 |
| | 1988 | 0.43 | 0.42 | 0.71 | 0.39 |
| Netherlands, | 1985 | 0.27 | 0.28 | 0.71 | 0.37 |
| | 1986 | 0.29 | 0.27 | 0.71 | 0.36 |
| Luxembourg, | 1985 | 0.41 | 0.40 | 0.71 | 0.36 |
| | 1986 | 0.38 | 0.28 | 0.71 | 0.36 |
| Lorraine, | 1985 | 0.42 | 0.25 | 0.71 | 0.53 |
| | 1986 | 0.49 | 0.30 | 0.71 | 0.54 |
| Ireland, | 1987 | 0.64 | 0.44 | 0.71 | 0.67 |
| | 1989 | 0.64 | 0.44 | 0.71 | 0.53 |
| Catalonia, | 1988 | 0.55 | 0.36 | 0.71 | |
| Greece, | 1988 | 0.29 | 0.44 | 0.82 | |

Another important aspect of the poverty lines is their *behavior across time*. Table A1 also shows the changes in the levels of the poverty lines (in real terms) from the first to the second wave for the five countries for which we have two wave data. The EC-standard rises in all countries, and, by definition, a constant percentage applies to all types of household. The subjective standards often show more substantial changes. The SPL rises strongly in The Netherlands, while it falls considerably in Luxembourg. The CSP-standard has more overall stability, as shown by the geometric means, but it produces sometimes large fluctuations in the poverty lines for certain types of household.

These drastic changes in the subjective standards across only one, two or three years appear implausible. It seems unlikely that they reflect any real social changes, especially because the CSP and SPL-standards do not move in tandem, but more often in opposite directions. The strong fluctuations may be due to the rather simple models applied here. Muffels, Kapteyn a.o. (1990, pp. 137-175) report that more refined models, that take the ages of children, reference group effects and selectivity bias into account, produce more stable results in The Netherlands.

4. The incidence and characteristics of poverty

In this section results are presented on the incidence of poverty, as defined by the various standards, for the countries and regions as a whole, and disaggregated by a number of variables. I also discuss the characteristics of the poor, i.e. the social composition of the group of households below the poverty line. The legal standard is not used for the disaggregated results on poverty, because it is not defined for all countries, and to save space.

The disadvantages of the "headcount" measure of poverty are recognized (it does not take into account how far people are below the poverty line, cf. Sen, 1976), but it seems unlikely that the results would be very different if a more sophisticated measure of poverty had been used. Perhaps a more serious shortcoming is that households are counted, instead of individuals. This implies that, implicitly, in the measure of poverty used here two single persons carry twice as much weight as a couple with two children, and there seems not to be any good reason for this..

On the basis of the 'EC'-standard, the countries and regions can be divided into two groups: on the one hand the Benelux countries, with a relatively low poverty rate, and on the other hand Catalonia, Ireland and Greece, where the poverty incidence is at least twice as high (table 4.1). Lorraine is situated between these groups. These results are broadly in agreement with studies by Eurostat (1990) and by O'Higgins and Jenkins (1990), who present estimates for all EC-countries. It is noteworthy that, although only half of all EC-countries are represented in this study, these include some of the 'richest' as well as some of the poorest ones.

The estimates based on the SPL and CSP standards are much, often very much, higher than those obtained with the EC-standard. Roughly, they follow the same pattern: the southern countries, Greece and Catalonia, and Ireland have the highest rates of poor households, while the Benelux countries have the lowest ones. But within the Benelux countries, the subjective poverty rates are much higher in Belgium than in The Netherlands and Luxembourg, while the poverty rates based on the EC-standard are virtually the same for all Benelux countries.

Table 4.1: Proportion of all households in poverty.

| | CSP-standard | SPL-standard | EC-standard | LEGAL-standard |
|-------------------|--------------|--------------|-------------|----------------|
| Belgium, 1985 | 21,4 | 24,9 | 6,1 | 2,9 |
| Netherlands, 1986 | 10,9 | 15,9 | 7,2 | 7,2 |
| Luxembourg, 1986 | 14,5 | 12,5 | 7,6 | 5,0 |
| Lorraine, 1986 | 30,8 | 26,5 | 10,8 | 4,0 |
| Ireland, 1987 | 29,6 | 31,6 | 17,2 | 8,1 |
| Catalonia, 1988 | 31,3 | 37,3 | 15,1 | |
| Greece, 1988 | 42,6 | 42,0 | 19,9 | |

The poverty rates produced by the legal standard follow a rather different pattern. Ireland has the highest poverty rate, followed by The Netherlands, Luxembourg, Lorraine and Belgium. Except perhaps for Belgium, these percentages might appear rather high, considering that it involves a guaranteed minimum income. In the case of Luxembourg and Lorraine the probable explanation is that in both countries the guaranteed minimum income was not yet in effect in 1986. In Ireland, some groups are not covered by the guaranteed income scheme, such as students, some self-employed persons and some full-time employees. Most of the households below the legal minimum, however, do not take up support to which they are entitled, possibly because of lack of information (Callan, Nolan a.o., 1989, p. 151). In The Netherlands, the guaranteed minimum income covers the whole population. Reasons for households falling below the official minimum could include punitive cuts in benefits and non-take up of certain small extra allowances.

We now turn to the question, which are the groups at high risk of poverty? There is unfortunately no simple answer to this question, not only because the characteristics of the poor vary considerably across countries, but also because there are important differences according to the poverty standard used. These differences depend in particular on the equivalence scale of the standard. The equivalence scale of the EC-standard is rather steep, in comparison to most equivalence scales in the literature. The implied equivalence scales of the subjective standards are much flatter, but the differences across countries are mostly not very large. On the other hand, in general the *level* of the poverty lines does not have a great effect on the relative poverty risks of social groups (i.e. the poverty-rate within a group in comparison to the overall poverty rate). The characteristics of the poor in the various countries, as measured by the subjective standards, can

therefore be assumed to be roughly comparable, even if the overall poverty rate itself is not. For this reason, we will look at the relative poverty risks of social groups by the subjective standards, as well as by the EC-standard (tables 4.2-4.4).

A consistent finding by all standards and for all countries is that households where the head is *unemployed* face a very high risk of poverty. When the head is *sick or disabled* the risk is lower, though still considerable above average. The results for households where the head is *retired* are rather mixed: using the EC-standard, these households are a relatively high risk of poverty only in Catalonia, while their risk is considerably below average in Ireland and The Netherlands. By the subjective standards, especially the SPL their relative risk of poverty is much higher, and only in Ireland does it not exceed the average risk.

Table 4.2.: The incidence of poverty in a number of social categories by the CSP-standard.

| % in poverty | BEL- GIUM 1985 | NETHER- LANDS 1986 | LUXEM- BOURG 1986 | LOR- RAINE 1986 | IRE- LAND 1987 | CATA- LONIA 1988 | GREECE 1988 |
|------------------------------|----------------------|--------------------------|-------------------------|-----------------------|----------------------|------------------------|----------------|
| all households | 21.4 | 10,9 | 14.5 | 30,8 | 29,6 | 31.3 | 42.6 |
| head of household is: | | | | | | | |
| employed | 11.6 | 3.4 | 9.5 | 26.1 | 20.0 | 23.7 | 39.7 |
| retired | 29.8 | 16.4 | 15.0 | 29.1 | 18.1 | 40.3 | 46.5 |
| unemployed | 61.4 | 42.9 | 61.9 | 64.3 | 74.7 | 63.4 | 72.7 |
| sick/disabled | 38.0 | 28.6 | 40.0 | 46.9 | 61.1 | 63.4 | - |
| farmer | 21.3 | 25.4 | 16.4 | 47.6 | 42.6 | 36.5 | 56.6 |
| 16-24 years | 32.4 | 20.3 | 32.3 | 45.3 | 42.5 | 27.2 | 46.5 |
| 65-74 years | 25.9 | 14.4 | 18.0 | 21.2 | 20.7 | 33.2 | 47.7 |
| 75+ years | 38.0 | 16.7 | 16.3 | 39.3 | 13.9 | 51.9 | 48.4 |
| widow/widower | 33.0 | 23.4 | 19.1 | 42.0 | 23.5 | 47.0 | 57.1 |
| divorced or separated | 30.3 | 16.9 | 13.9 | 25.4 | 53.4 | 33.6 | 51.4 |
| female | 33.7 | 20.6 | 24.1 | 44.3 | 26.5 | 40.6 | 54.5 |
| Type of household*: | | | | | | | |
| single elderly person | 36.7 | 22.8 | 25.7 | 41.9 | 27.0 | 46.2 | 55.9 |
| two elderly persons | 27.3 | 8.1 | 13.3 | 23.3 | 14.7 | 38.4 | 51.0 |
| single adult | 29.9 | 23.0 | 20.8 | 29.7 | 44.4 | 27.9 | 45.1 |
| single adult, one child | 51.7 | 3.3 | 47.0 | 38.1 | 45.6 | 42.9 | 45.5 |
| single adult, two children | 24.6 | 8.0 | 28.2 | 41.2 | 59.6 | 36.4 | 33.3 |
| two adults, three children | 12.5 | 4.3 | 5.5 | 32.2 | 39.0 | 40.5 | 42.6 |
| only one income provider | 33.3 | 14.9 | 20.7 | 40.5 | 39.5 | 48.1 | 47.5 |
| no persons at work | 40.7 | 27.1 | 26.4 | 42.1 | 51.7 | 57.8 | 53.1 |

* adult = non-elderly adult

Similarly inconsistent results are found in general for households where the head is *elderly* (65+) and/or *widowed*. Nevertheless, it appears that in Ireland the elderly are no more than at average risk, while in Catalonia, and also in Belgium, a large proportion of these households is in poverty, relative to the overall poverty rate. The discrepancy in the results of the different standards is particularly striking for The Netherlands. Similar patterns are found for *female-headed* households, probably because many of these females are in fact widows.

Table 4.3.: The incidence of poverty in a number of social categories by the SPL-standard.

| % in poverty | BEL- GIUM 1985 | NETHER- LANDS 1986 | LUXEM- BOURG 1986 | LOR- RAINE 1986 | IRE- LAND 1987 | CATA- LONIA 1988 | GREECE 1988 |
|------------------------------|----------------------|--------------------------|-------------------------|-----------------------|----------------------|------------------------|----------------|
| all households | 24.9 | 15.9 | 12.5 | 26.5 | 31.6 | 37.3 | 42.0 |
| head of household is: | | | | | | | |
| employed | 9.4 | 4.3 | 3.8 | 16.5 | 15.8 | 26.8 | 35.6 |
| retired | 47.2 | 29.0 | 16.5 | 35.9 | 35.2 | 58.6 | 54.2 |
| unemployed | 59.2 | 51.0 | 52.4 | 58.9 | 67.3 | 64.9 | 75.8 |
| sick/disabled | 34.6 | 28.4 | 25.1 | 31.2 | 57.0 | 61.0 | - |
| farmer | 21.3 | 23.7 | 6.3 | 37.5 | 38.5 | 38.9 | 53.4 |
| 16-24 years | 40.1 | 40.9 | 26.7 | 42.8 | 38.6 | 33.3 | 50.0 |
| 65-74 years | 46.1 | 25.6 | 30.4 | 36.4 | 40.3 | 53.6 | 39.5 |
| 75+ years | 65.1 | 34.7 | 29.3 | 52.4 | 43.8 | 75.6 | 63.7 |
| widow/widower | 55.2 | 42.6 | 31.7 | 54.4 | 52.0 | 64.0 | 59.7 |
| divorced or separated | 34.4 | 32.8 | 12.4 | 34.5 | 58.6 | 44.3 | 49.1 |
| female | 51.9 | 39.2 | 33.2 | 57.4 | 50.0 | 56.2 | 56.9 |
| Type of household: | | | | | | | |
| single elderly person | 67.7 | 47.8 | 46.0 | 72.6 | 70.2 | 85.9 | 70.5 |
| two elderly persons | 50.3 | 14.2 | 17.8 | 32.5 | 28.4 | 78.6 | 70.7 |
| single adult | 40.6 | 38.6 | 19.2 | 43.7 | 52.5 | 39.9 | 35.8 |
| single adult, one child | 54.0 | 33.9 | 47.0 | 52.4 | 67.6 | 52.4 | 44.1 |
| single adult, two children | 26.1 | 30.0 | 28.2 | 41.2 | 68.1 | 72.7 | 36.4 |
| two adults, three children | 6.2 | 5.9 | 0.9 | 18.2 | 36.1 | 50.6 | 47.5 |
| only one income provider | 40.7 | 23.5 | 19.5 | 39.1 | 45.1 | 60.5 | 48.3 |
| no persons at work | 55.8 | 41.7 | 33.6 | 50.6 | 68.2 | 77.0 | 62.8 |

* adult = non-elderly adult

Looking at the non-elderly, we find that in Belgium, The Netherlands, Luxembourg and Ireland, *single persons* are at relatively high risk of poverty by the subjective standards, but not by the EC-standard. In the northern countries the poverty rate among *very young householders* (16-24 years) is relatively high by alle standards. *Divorced or separated* heads of household are in most countries at relatively high risk of poverty, except in

Lorraine and in Luxembourg by the subjective standards. Very high relative poverty rates are also found for *one-parent families*, though there are several exceptions, notably in The Netherlands. In Ireland *two parent families with three or more children* are at high relative risk of poverty by all standards, while for The Netherlands, Luxembourg and Greece this is only true by the EC-standard.

Table 4.4.: The incidence of poverty in a number of social categories by the EC-standard.

| % in poverty | BEL- GIUM 1985 | NETHER- LANDS 1986 | LUXEM- BOURG 1986 | LOR- RAINE 1986 | IRE- LAND 1987 | CATA- LONIA 1988 | GREECE 1988 |
|------------------------------|----------------------|--------------------------|-------------------------|-----------------------|----------------------|------------------------|----------------|
| all households | 6.1 | 7.2 | 7.6 | 10.8 | 17.2 | 15.1 | 19.9 |
| head of household is: | | | | | | | |
| employed | 2.9 | 5.2 | 5.5 | 6.8 | 11.9 | 9.0 | 19.1 |
| retired | 6.6 | 2.4 | 7.4 | 9.3 | 7.9 | 22.1 | 21.7 |
| unemployed | 26.2 | 19.4 | 40.9 | 41.0 | 58.9 | 43.5 | 36.4 |
| sick/disabled | 10.7 | 10.0 | 19.6 | 22.9 | 24.4 | 40.7 | - |
| farmer | 17.0 | 23.7 | 7.7 | 19.7 | 32.0 | 20.0 | 36.5 |
| 16-24 years | 11.6 | 19.5 | 17.6 | 14.7 | 31.4 | 7.9 | 10.9 |
| 65-74 years | 6.9 | 2.4 | 7.6 | 6.3 | 8.4 | 18.2 | 18.1 |
| 75+ years | 9.2 | 2.5 | 7.8 | 18.6 | 4.1 | 36.9 | 29.0 |
| widow/widower | 4.6 | 2.3 | 5.3 | 15.4 | 6.6 | 27.3 | 22.0 |
| divorced or separated | 9.1 | 8.5 | 11.6 | 11.7 | 33.1 | 21.2 | 27.0 |
| female | 6.3 | 6.9 | 9.0 | 19.1 | 10.1 | 23.4 | 21.1 |
| Type of household*: | | | | | | | |
| single elderly person | 5.0 | 1.6 | 7.1 | 19.3 | 3.0 | 29.3 | 24.1 |
| two elderly persons | 11.3 | 3.2 | 11.5 | 9.2 | 8.4 | 30.2 | 33.7 |
| single adult | 5.8 | 8.5 | 7.0 | 12.5 | 20.3 | 10.1 | 7.4 |
| single adult, one child | 7.5 | 3.3 | 25.6 | 9.5 | 19.3 | 23.8 | 30.3 |
| single adult, two children | 13.0 | 14.0 | 32.9 | 23.5 | 61.0 | 18.2 | 24.2 |
| two adults, three children | 8.5 | 19.1 | 17.4 | 13.1 | 34.3 | 17.7 | 37.6 |
| only one income provider | 8.9 | 9.2 | 9.5 | 13.9 | 22.7 | 24.7 | 18.9 |
| no persons at work | 11.8 | 11.6 | 12.7 | 19.7 | 30.2 | 35.2 | 23.9 |

* adult = non-elderly adult

A somewhat different perspective on poverty is provided when we look at the composition of the poor. Some social categories are important among the poor, even though their risk of poverty is relatively low, simply because they form a large part of the population. Other groups with a high rate of poverty, but which are few in numbers, may form only a small minority among the poor.

In many cases, of course, the circumstances and characteristics mentioned only result in poverty if they occur in combination with each other. For a particular poor household, several of its characteristics could be designated as the cause of its poverty. Which factor is singled out then depends on the perspective taken. Nevertheless, these univariate results already provide some clues to the most important proximate causes of poverty in EC-countries.

The divergences between the standards used again make it difficult to obtain a clear picture of the characteristics of the poor. Nevertheless, the following observations seem to be warranted (tables 4.5-4.7).

In very many poor households the *head is working*. By the strict EC-standard this is the case for around 40% of all poor households, except in Belgium where the proportion of working poor heads of household seems to be somewhat lower, and in Greece where it is considerably higher. By the subjective standards fewer among the poor households in Belgium, The Netherlands and Luxembourg have working heads. At this point it is unclear why so many households with working heads are in poverty. A large number of causes may be involved, and these need not be the same in all countries. We can identify two factors, however. First, because in the northern countries three-quarters or more of all poor households by any standard have only one, or no, income provider, it seems reasonable to assume that in the majority of working poor households the head is the only breadwinner. Cantillon (1991) has pointed out the problematic situation of one-income families in countries where double incomes are becoming the norm. Secondly, it is important to note that in countries where a large part of the population is employed in agriculture (here Greece and Ireland), many of the poor are in *farmer's* households.

In several countries, *unemployed* heads of household are an important group among the poor. This is true in particular for Ireland, to a lesser extent for Belgium, and also for The Netherlands, Lorraine and Catalonia. In all countries unemployment benefits seem to be inadequate for many, if not most unemployed heads of households. The variation across countries is mainly related to the varying proportion of these households in the entire population.

Households where the head is *retired* and/or elderly are in most countries an important group among the poor, though by no means a majority. Inadequate retirement and survival pensions for *some* elderly are still an important cause of poverty. In Ireland, however, the retired and elderly seem to form only a small minority among the poor.

Using the EC-standard, this is also true for the Netherlands. In Belgium these households form a larger proportion of all poor than in other countries.

Even though the poverty rate among *one-parent families* is generally very high, they are few in number. Therefore, only a small proportion of all poor households are one-parent households. This is rather in contrast to the situation in the U.S.A. (Sawhill, 1988, p. 1084).

In Ireland, more than one-third of all poor households by the EC-standard, and about one-quarter by the subjective standards, are two-parent *families with three or more children*. By the same standard, but not by the subjective standards, almost half of all poor Dutch households are two-parent families with two or more children. In the other countries, these households are much less represented among the poor by all standards.

In the northern countries, around three-quarters or more of all poor households have only *one, or no, income provider* (i.e. a person with an income from earnings or social security). In Greece, and to a lesser extent in Catalonia, many poor households have two or even more income providers.

Table 4.5.: The characteristics of the poor: percentage of poor households having selected characteristics, using the CSP-standard.

| | BEL- GIUM 85 | NETHER- LANDS 86 | LUXEM- BURG 86 | LOR- RAINE 86 | IRE- LAND 87 | CATA- LONIA 88 | GREE- CE 88 |
|------------------------------------|--------------------|------------------------|----------------------|---------------------|--------------------|----------------------|-------------------|
| Head of household | | | | | | | |
| at work | 32.7 | 20.0 | 41.0 | 52.1 | 39.1 | 51.6 | 65.4 |
| (farmer) | 0.7 | 3.0 | 1.8 | 2.9 | 17.3 | 3.3 | 26.0 |
| retired | 40.5 | 28.9 | 18.2 | 25.2 | 8.9 | 24.0 | 25.8 |
| unemployed | 15.8 | 18.1 | 3.0 | 8.4 | 26.8 | 8.9 | 1.9 |
| 65 years or older | 29.5 | 22.1 | 26.2 | 18.8 | 14.5 | 21.6 | 22.7 |
| Type of household | | | | | | | |
| One parent households | 4.4 | 1.2 | 6.0 | 2.8 | 4.3 | 1.4 | 2.0 |
| Two adults* + 2 children | 10.4 | 6.8 | 8.6 | 13.2 | 14.0 | 12.0 | 11.9 |
| Two adults* + 3 children | 3.2 | 2.9 | 1.7 | 6.2 | 24.2 | 3.4 | 4.8 |
| Number of income providers: 0 or 1 | 78.6 | 77.6 | 82.7 | 72.3 | 82.2 | 59.8 | 52.0 |

*: adult: non-elderly person.

Table 4.6.: The characteristics of the poor: percentage of poor households having selected characteristics, using the SPL-standard.

| | BEL- GIUM 85 | NETHER- LANDS 86 | LUXEM- BURG 86 | LOR- RAINE 86 | IRE- LAND 87 | CATA- LONIA 88 | GREE- CE 88 |
|------------------------------------|--------------------|------------------------|----------------------|---------------------|--------------------|----------------------|-------------------|
| Head of household | | | | | | | |
| at work | 22.8 | 17.3 | 19.0 | 38.3 | 28.9 | 49.6 | 59.5 |
| (farmer) | 0.6 | 1.9 | 0.8 | 2.7 | 14.6 | 2.9 | 24.9 |
| retired | 55.2 | 35.0 | 23.2 | 36.2 | 16.2 | 29.2 | 30.5 |
| unemployed | 13.1 | 14.8 | 2.9 | 8.9 | 22.6 | 7.7 | 2.0 |
| 65 years or older | 44.4 | 5.4 | 22.1 | 32.3 | 9.5 | 28.1 | 29.2 |
| Type of household | | | | | | | |
| One parent households | 4.0 | 4.9 | 6.9 | 4.0 | 5.0 | 1.8 | 2.1 |
| Two adults* + 2 children | 6.4 | 6.4 | 1.9 | 7.9 | 9.4 | 12.5 | 8.9 |
| Two adults* + 3 children | 1.5 | 2.7 | 0.3 | 4.1 | 21.0 | 3.5 | 5.4 |
| Number of income providers: 0 or 1 | 82.5 | 82.1 | 80.6 | 83.4 | 86.3 | 63.0 | 54.0 |

*: adult: non-elderly person.

Table 4.7: The characteristics of the poor: percentage of poor households having selected characteristics, using the EC-standard.

| | BEL- GIUM 85 | NETHER- LANDS 86 | LUXEM- BURG 86 | LOR- RAINE 86 | IRE- LAND 87 | CATA- LONIA 88 | GREE- CE 88 |
|------------------------------------|--------------------|------------------------|----------------------|---------------------|--------------------|----------------------|-------------------|
| Head of household | | | | | | | |
| at work | 28.7 | 46.2 | 45.3 | 38.7 | 40.0 | 40.7 | 67.4 |
| (farmer) | 2.0 | 4.3 | 1.6 | 3.5 | 22.3 | 3.7 | 36.0 |
| retired | 31.5 | 6.4 | 17.1 | 23.0 | 6.7 | 27.2 | 25.7 |
| unemployed | 23.6 | 12.5 | 3.8 | 15.2 | 36.3 | 12.7 | 2.0 |
| 65 years or older | 26.4 | 5.4 | 22.1 | 21.8 | 9.5 | 27.6 | 29.2 |
| Type of household | | | | | | | |
| One parent households | 3.9 | 2.7 | 9.4 | 3.0 | 6.4 | 1.6 | 3.0 |
| Two adults* | 8.7 | 7.7 | 7.3 | 5.7 | 4.7 | 6.4 | 8.8 |
| Two adults* + 1 child | 11.5 | 6.3 | 7.6 | 10.2 | 7.7 | 3.3 | 4.2 |
| Two adults* + 2 children | 13.0 | 27.9 | 10.9 | 9.9 | 12.6 | 9.7 | 9.8 |
| Two adults* + 3 children | 8.4 | 19.4 | 10.3 | 7.2 | 36.7 | 3.1 | 9.1 |
| Number of income providers: 0 or 1 | 73.7 | 74.5 | 74.4 | 78.2 | 86.8 | 64.0 | 44.3 |

*: adult: non-elderly person.

5 Social security transfers and poverty

In this section the role of social security cash transfers in relieving poverty is analysed. Social security transfers include social assistance payments and other means-tested benefits, as well as social insurance benefits. For a precise definition of social security transfers in the several countries, we refer to Deleeck, Van den Bosch, De Lathouwer (1992, appendix C). The method used is that of calculating the number of poor households on the basis of pre-transfer and post-transfer incomes. Pre-transfer income is defined as actual disposable income less actual social security transfers received. Post-transfer income is equal to disposable income. Pre-transfer income cannot be equalled to a hypothetical income in the absence of social security: social security contributions and taxes are not included in it, and behavioral changes are not taken into account. However, this relatively simple numerical exercise can serve as a first indication of the effect of social security transfers on poverty.

In the first place there are considerable differences in the proportion of households that would be non-poor on the basis of their pre-transfer-income alone (table 4.1). Catalan households are the least dependent on social security. Using the EC-standard, almost 70% of all households in Catalonia would not be in poverty without social security. In Ireland, on the other hand, almost half of all households would be in poverty without social security transfers. In the other countries, this percentage is around 40%. Using the more generous CSP and SPL-standards, the proportions of households with incomes below the poverty line before social security transfers are generally higher. This is not true for The Netherlands, which, together with Luxembourg, has the highest proportion of households with pre-transfer incomes above the subjective poverty lines. By contrast, in Greece about 55% of all households have pre-transfer incomes below the subjective poverty lines.

Given these initial situations, a first measure of the effect of social security transfers on the extent of poverty is the number of households non-poor due to social transfers, as a proportion of all households with pre-transfer incomes below the poverty line (table 5.2).

Table 5.1: Proportion of all households not in poverty before social transfers.

| | CSP-standard | SPL-standard | EC-standard | LEGAL-standard |
|-------------------|--------------|--------------|-------------|----------------|
| Belgium, 1985 | 48,5 | 50,4 | 59,0 | 65,2 |
| Netherlands, 1986 | 62,9 | 61,3 | 60,2 | 63,6 |
| Luxembourg, 1986 | 56,7 | 64,0 | 61,1 | 68,3 |
| Lorraine, 1986 | 43,3 | 50,3 | 60,6 | 71,3 |
| Ireland, 1987 | 47,1 | 49,9 | 53,8 | 57,5 |
| Catalonia, 1988 | 55,3 | 52,2 | 69,2 | |
| Greece, 1988 | 42,9 | 45,8 | 61,9 | |

By all standards the effectiveness of social security, defined in this way, is highest in the Benelux-countries. Using the EC-standard more than 80% of the poor before social security are not poor after it; using the subjective standards the percentages vary between 50% and 70%. In Lorraine the proportions are somewhat lower. In Greece and Catalonia the effectiveness is much lower; it is indeed very low. By the EC-standard only half of all households that would be poor without social security are non-poor thanks to it; only one-quarter of these households are lifted to the level of the subjective standards. Ireland occupies a position in between the Benelux countries and the southern countries.

Table 5.2: Proportion of all households, poor before social security, that are non-poor due to social security transfers.

| | CSP-standard | SPL-standard | EC-standard | LEGAL-standard |
|-------------------|--------------|--------------|-------------|----------------|
| Belgium, 1985 | 58,4 | 49,7 | 85,1 | 91,6 |
| Netherlands, 1986 | 70,6 | 58,9 | 82,0 | 80,2 |
| Luxembourg, 1986 | 66,4 | 65,6 | 80,5 | 84,2 |
| Lorraine, 1986 | 45,7 | 46,7 | 72,6 | 86,4 |
| Ireland, 1987 | 44,2 | 36,9 | 62,8 | 80,9 |
| Catalonia, 1988 | 29,9 | 22,0 | 51,0 | |
| Greece, 1988 | 25,4 | 22,5 | 47,8 | |

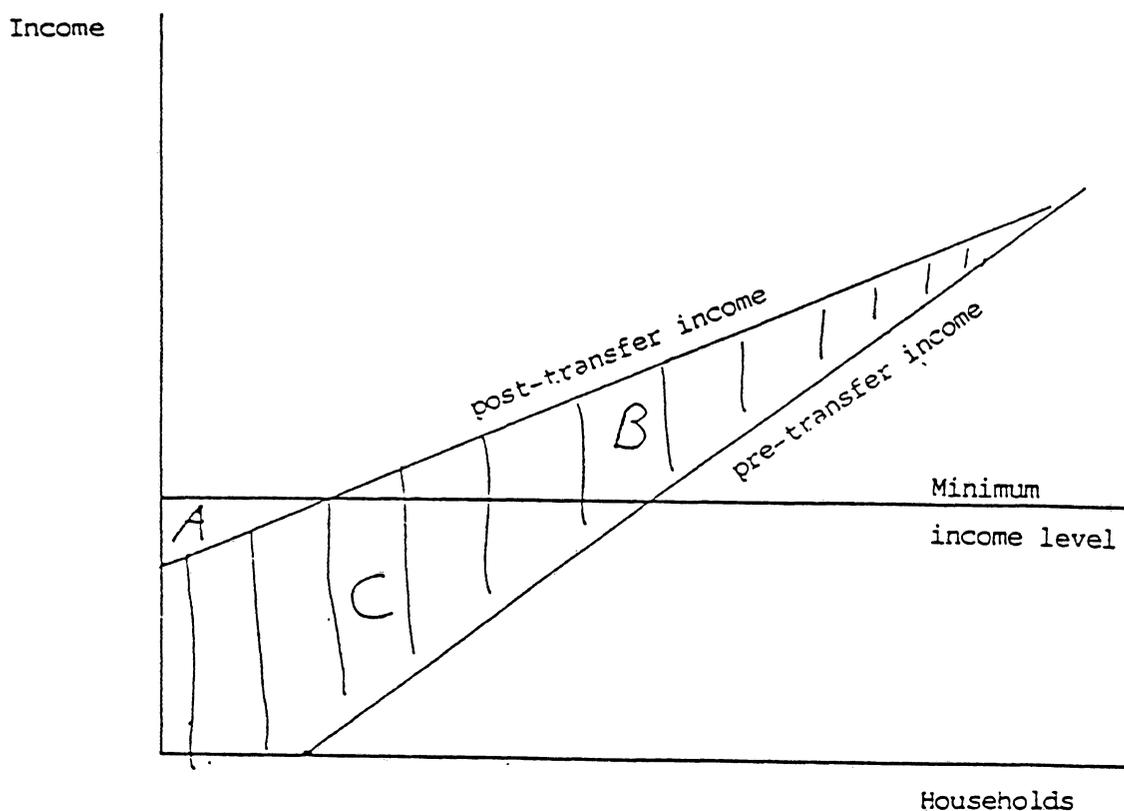
The results, based on the legal standard, are particularly interesting. Because the legal standard is part of the social security system, we might say that using the legal minimum income is to evaluate the social security system by its own standard. In Belgium, 90% of all households whose income would be below the legal standard without social security, are brought above this level of income by the social transfers, but in Ireland and in The Netherlands social security succeeds in making non-poor only 80% of the households that would be poor without it. The other countries are in between. It is not completely clear why a significant group of households in several countries are below the legally guaranteed minimum income. Lack of entitlement plays a role in some countries, non take-up of certain payments is probably an important reason in most countries.

To get a complete picture of the effect of social security on poverty, it is not enough to look only at the number of households below the poverty line before and after social transfers, but one must also take into account the amounts transferred.

An indicator of the extent to which social security *fails* to prevent poverty is the *poverty-gap* after social transfers are granted, which is equal to the total income deficit of all households (where the deficit is defined as the poverty line minus actual income). In order to facilitate interpretation, in table 5.3 the poverty-gap is given as a percentage of aggregate income of all households. The poverty gap appears to be relatively large in Ireland, Catalonia and Lorraine (1,9 - 2,7% by the EC-standard, 4% to 7% by the subjective standards). In the Benelux-countries the poverty gap is a relatively insignificant amount: less than 1% of aggregate household income by the EC-standard, between 1% and 3% by the subjective standards. Unfortunately, there are no results on this point for Greece, but because both the number of poor and the average poverty-gap exceed those for any of the other countries, it seems likely that the poverty-gap in Greece is much larger - relatively - than in the other countries studied here.

To assess the adequacy of social security regarding poverty alleviation, the so-called *Beckerman ratios* (Beckerman, 1979) are used, through which we can evaluate the effectiveness and the efficiency of the social security system. By *effectiveness* we understand the extent to which social security succeeds in "relieving the poor", i.e. how far the poverty-gap before social transfers is eliminated by social security. The measure of *efficiency*, on the other hand, indicates what part of social security actually helps in making households non-poor, and what part is 'wasted' in the sense that it is received by households with pre-transfer incomes above the poverty line, or by pre-transfer poor households in excess of what they strictly need to reach the minimum income level. This is illustrated in figure 5.1.

Figure 5.1.: Illustration of Beckerman ratios



The shaded area (B+C) represents social transfers. Area A is the poverty-gap. Areas A and C together form the poverty-gap before social security. Area B stands for the part of social transfers that is received by households which do not strictly need it for their security of subsistence. Thus we can measure effectiveness by $C/(A + C)$ and efficiency by $C/(B + C)$.

Here we assess "efficiency" and "effectiveness" purely in terms of minimum income standards. It has to be kept in mind that relieving poverty is certainly not the only aim of social security. Historically, the primary aim of social insurance (as distinguished from social assistance) has been the protection of the standard of living of persons who experienced certain social risks, such as unemployment, invalidity or retirement.

From table 5.4 it appears that social security is most *effective* in the Benelux-countries: using the EC-standard or the legal standard, more than 90% of the pre-transfer poverty gap is eliminated; using the subjective standards 85% or more is closed. In Lorraine and Ireland the effectiveness of social security is slightly less. In Catalonia social security seems relatively ineffective: using the EC-standard less than three-quarters of the poverty gap is eliminated, by the subjective standards barely half of the poverty gap is closed.

Generally speaking, there can be three reasons for low effectiveness: either the size of the problem (the pre-transfer poverty gap) is relatively large, or the resources of social security are insufficient, or these resources are not sufficiently targeted towards the poor (low efficiency). The pre-transfer poverty gaps as a percentage of aggregate household income using the EC-standard are as follows: Ireland: 15,6%; Catalonia: 7,0%; Belgium: 12,6%; The Netherlands: 10,0%; Lorraine: 11,5% and Luxembourg: 10,8%. The size of the problem, therefore seems to be one of the reasons why the Irish social security system is less effective than the Benelux ones, but this is not true for Lorraine and certainly not for Catalonia.

Expressing the available (total social security transfers) in the same way, as a proportion of aggregate household income, we get the following result: Greece, 17.4%; Ireland, 24.1%; Catalonia, 12.7%; Belgium, 28.2%; Netherlands, 24.1%, Lorraine, 26.4%; Luxembourg, 25.3%⁵. Comparing these two series, it is clear that in the Benelux countries and Lorraine, the available resources of social security are much larger relative to the 'needs' (as indicated by the poverty gap before social transfers) than in the other countries. In Ireland and Catalonia, the ratio resources /needs is much more unfavorable, in Ireland mainly because of the higher level of need, in Catalonia because of the much smaller means.

Less than perfect effectiveness, in combination with resources that are at least in theory sufficient, implies inefficiency. From the point of view of eliminating poverty, all social security systems are indeed rather *inefficient* (table 5.5): between 35% and 60% of aggregate social transfers goes to households that are not poor before social transfers, or to households in excess of what they strictly need to be above the poverty line. By all standards, the Irish system is one of the least inefficient: using the CSP-standard, only 38% of total transfers is "wasted". Table 5.5 also shows that the relatively low effectiveness of social security in Catalonia is not related to lower efficiency: the efficiency of social security in Catalonia is not lower than in the Benelux-countries.

Much of this 'waste' is accounted for by what pre-transfers poor households receive in excess of the poverty line. This is less true for Ireland and Catalonia, than for the

⁵ These figures are not quite in agreement with official statistics on social security transfers as a proportion of G.D.P., especially as regards the position of The Netherlands. This is partly due to the well-known problems of household survey data, but also to definitional differences in both the numerators and the denominators of the ratios.

Benelux and Lorraine. Table 5.6 shows that the bulk of social transfers goes to pre-transfer poor households.

Table 5.3: The post-transfer poverty-gap as a percentage of aggregate income of all households.

| | CSP-standard | SPL-standard | EC-standard | LEGAL-standard |
|--------------------|--------------|--------------|-------------|----------------|
| Belgium, 1985 | 2,6 | 3,0 | 0,5 | 0,2 |
| Netherlands, 1986* | 1,0 | 1,6 | 0,9 | 0,9 |
| Luxembourg, 1986 | 1,6 | 1,3 | 0,8 | 0,3 |
| Lorraine, 1986 | 5,4 | 4,0 | 1,4 | 0,4 |
| Ireland, 1987 | 5,0 | 4,5 | 2,7 | 1,7 |
| Catalonia, 1988 | 5,3 | 7,0 | 1,8 | |
| Greece, 1988 | N.A. | N.A. | N.A. | |

* figures calculated on the basis of average amounts.

Table 5.4: "Effectiveness" of social security: percentage of pre-transfer aggregate poverty-gap eliminated by social transfers.

| | CSP-standard | SPL-standard | * EC-standard | LEGAL-standard |
|--------------------|--------------|--------------|---------------|----------------|
| Belgium, 1985 | 86,5 | 84,7 | 95,7 | 98,2 |
| Netherlands, 1986* | 90,9 | 86,9 | 90,9 | 91,3 |
| Luxembourg, 1986 | 88,1 | 89,9 | 92,6 | 96,7 |
| Lorraine, 1986 | 73,3 | 77,3 | 88,3 | 94,0 |
| Ireland, 1987 | 75,0 | 76,9 | 83,0 | 86,6 |
| Catalonia, 1988 | 57,9 | 52,7 | 74,8 | |
| Greece, 1988 | N.A. | N.A. | N.A. | |

* figures calculated on the basis of average amounts.

Table 5.5: "Efficiency" of social security: percentage of aggregate social transfers that helps to close the poverty-gap.

| | CSP-standard | SPL-standard | EC-standard | LEGAL-standard |
|--------------------|--------------|--------------|-------------|----------------|
| Belgium, 1985 | 59,1 | 59,7 | 42,7 | 43,8 |
| Netherlands, 1986* | 49,8 | 51,8 | 42,3 | 46,7 |
| Luxembourg, 1986 | 47,9 | 44,0 | 39,3 | 33,7 |
| Lorraine, 1986 | 55,6 | 51,8 | 38,5 | 23,2 |
| Ireland, 1987 | 62,3 | 61,5 | 53,7 | 45,0 |
| Catalonia, 1988 | 57,0 | 61,1 | 41,4 | |
| Greece, 1988 | N.A. | N.A. | N.A. | |

* figures calculated on the basis of average amounts.

Table 5.6: Share in total aggregate social transfers, received by households that are poor before social transfers.

| | CSP-standard | SPL-standard | EC-standard | LEGAL-standard |
|--------------------|--------------|--------------|-------------|----------------|
| Belgium, 1985 | 81,7 | 79,7 | 74,1 | 68,2 |
| Netherlands, 1986* | 78,1 | 77,9 | 79,1 | 77,6 |
| Luxembourg, 1986 | 76,7 | 68,6 | 73,2 | 64,9 |
| Lorraine, 1986 | 83,1 | 77,8 | 73,0 | 62,7 |
| Ireland, 1987 | 77,5 | 76,6 | 73,6 | 70,8 |
| Catalonia, 1988* | 76,2 | 77,3 | 64,3 | |
| Greece, 1988* | 79,2 | 80,3 | 69,5 | |

* figures calculated on the basis of average amounts.

6. Dynamic results on poverty: poverty in longitudinal perspective

6.1. The number of poor households across two waves

Comparisons between subsequent cross-sectional surveys often show that there are few significant changes in poverty rates from one year to another. The impression of a stable situation could be misleading, if one would translate it from the macro-level to the micro-level. The result that the overall situation remains much the same from one year to the next does not imply that all or most households stay in the same position. In particular, a stable overall rate of poverty does not mean that the same households are poor in both years. Until recently, this was a blind spot, at least in European poverty research, as panel data, which are needed to analyse this issue, were not available. The data that have come available, in some European countries, have shown that, as in the USA (Duncan, 1984), changes at the micro-level are unexpectedly large and frequent (for Germany: Berntsen and Rendtel, 1991; for The Netherlands: Muffels, Berghman and Dirven, 1992; for Belgium: Deleeck, Cantillon, Meulemans and Van den Bosch, 1991).

In this part of the paper some panel results on poverty are presented for five countries for which data of two waves of the household panel surveys are available: Belgium 1985-1988, The Netherlands 1985-1986, Luxemburg 1985-1986, Lorraine 1985-1986 and Ireland 1987-1989. Unfortunately, the time-gap between two waves is not the same for all countries: in The Netherlands, Lorraine and Luxemburg it is one year, in Ireland two years, and in Belgium three years. This obviously detracts from the comparability of the results. Furthermore, the panel results are somewhat limited in scope, because of the availability of only two waves. Nevertheless, they constitute one of the first comparative studies of transitions into and out of poverty in Europe.

The panel results are on the household level. Households were linked across waves if they had the same head in both years, or if the head had deceased and the partner had become head of household. This implies that certain wave-2 households that have split off from other wave-1 households, such as children who left their parent's home and women divorced from their husbands, are not included in the analysis. This is of course unfortunate, and it is certainly very much preferable to analyse mobility in poverty status on the individual level, where linking can be complete and unambiguous. Due to technical problems, not all countries were yet able to produce results on the individual level. However, after only one or three years, the number of split-off households will be rather

small, (1 to 3%) ⁽⁶⁾. Not all wave-1 households are included either, because some have left the population through death or emigration, and others are lost due to non-response. For these reasons the figures for wave 1 given here are sometimes slightly different from those given in section 4.

The most interesting figure of the panel results is the *proportion of households insecure of subsistence in the first wave, that are still so in the second year* (and, of course, its complement, the proportion of these households that are not insecure any more) (table 6.1). Interpretation of these figures is not always easy. If the level of the poverty-line has fallen between two waves, as has happened in some countries, this will itself produce some apparent mobility in poverty-status even without there being any real change in any household's situation. If the poverty-line has risen, this will probably reduce the number of households who have left poverty. Moreover, there are the differences in the period of time between waves.

Table 6.1: Proportion of all households in poverty in the first wave, that are still poor in the second wave.

| | CSP-standard | SPL-standard | EC-standard | LEGAL-standard |
|------------------------|--------------|--------------|-------------|----------------|
| Belgium, 1985-1988 | 62,9 | 60,8 | 42,0 | 24,2 |
| Netherlands, 1985-1986 | 47,3 | 69,7 | 40,6 | 30,6 |
| Luxembourg, 1985-1986 | 62,5 | 49,5 | 57,1 | 44,0 |
| Lorraine, 1985-1986 | 73,6 | 73,9 | 56,9 | 42,9 |
| Ireland, 1987-1989 | 71,2 | 84,1 | 63,8 | 26,2 |

Nevertheless, it is clear from table 6.1 that there is *substantial mobility* from insecurity to security of subsistence. On the basis of the EC-standard, between 34% to almost 60%, depending on the country, of all households financially insecure in wave 1, are *not* so in wave 2. Using the legal standard, the mobility appears to be even more substantial. The more generous subjective standards produce results that indicate less change in status. If we exclude cases where the poverty-rate in wave 2 diverges much from that in wave 1 ⁽⁷⁾, we find that generally 60% to 75% of households insecure in wave 1 remain in

⁽⁶⁾ Results for Belgium on the individual level were virtually the same.

⁽⁷⁾ These are: results with the SPL in Ireland, The Netherlands and Luxembourg, and with the CSP in Lorraine.

poverty. This is not true for The Netherlands, where the subjective standards are much lower.

These results seem to suggest an important methodological conclusion. It appears that in a given country, the higher the poverty rate, the lower the transition rate out of poverty. This also implies that estimated mobility will be lower if the poverty line is more generous (as there will be more households below it). Duncan, Gustafsson a.o. (1991, p. 9), also report "a marked inverse relationship between the estimated incidence of poverty and escape rates".

This tendency obviously affects comparisons across countries. Thus, using the EC-standard, we find that fewer households leave the state of insecurity of subsistence in Ireland than in the other countries. But it is difficult to say whether this is the result of less extensive income mobility in Ireland or of the fact that there are more households below the EC-line in Ireland. Changes in poverty status also seem less frequent in Lorraine and Luxembourg, where the number of households below the EC-standard is nearer to that of Belgium and The Netherlands. However, it must be kept in mind that the time-gaps between the two waves are not the same. It seems probable that after three years as many or more households would have escaped poverty in Luxembourg and in Lorraine as have done in Belgium. However, it is somewhat surprising that transitions are less frequent in Belgium, where three years have elapsed between the two waves, than in The Netherlands, where there is only one year difference.

Of course, there are not only households that escape poverty, but also a certain number that *become* poor or insecure of the means of subsistence, that were not so in the first wave. Using the EC-standard, between 3,3% in Luxembourg and 8,8% in Ireland of all households that were financially secure in the first wave, have become insecure in the second wave. On the basis of the subjective standards, the number of these households is much larger, from 16% in Ireland, to less than 6% in Luxembourg. These results are of course only the complement of those discussed in the previous paragraphs, and the same remarks apply, *mutatis mutandis*, to them too.

Another way to look at these figures is to see what proportions of all households are insecure of the means of subsistence in *both waves* (table 6.2) Of course, these households cannot be equalled to the "permanent" poor in any sense of the word. Still, it would seem that these households are on average insecure or poor for a longer time than other households.

Table 6.2: Percentage of all households that are poor in both waves,.

| | CSP-standard | SPL-standard | EC-standard | LEGAL-standard |
|------------------------|--------------|--------------|-------------|----------------|
| Belgium, 1985-1988 | 13,5 | 14,9 | 2,4 | 0,6 |
| Netherlands, 1985-1986 | 5,3 | 5,3 | 2,6 | 2,2 |
| Luxembourg, 1985-1986 | 9,4 | 9,8 | 4,4 | 2,8 |
| Lorraine, 1985-1986 | 19,3 | 19,1 | 6,1 | 2,0 |
| Ireland, 1987-1989 | 22,3 | 31,2 | 10,2 | 1,7 |

Because of the mobility in poverty-status, the figures in table 6.2 are much lower than the single-year poverty-rates. Nevertheless, comparatively, conclusions drawn on the basis of cross-sectional analysis are mostly confirmed. In fact the differences across countries are reinforced. Using the EC-standard, we find that Ireland has the largest proportion of households insecure in both waves, followed by Lorraine. In Belgium and The Netherlands this proportion is less than 3%. In contrast to the single-year results, Luxembourg has more "longer-term" poor than the other Benelux countries. On the basis of the subjective standards, the relative positions of Ireland and Lorraine are similar. But in The Netherlands, the number of households with incomes below the subjective standard is much smaller than in other countries, while in Belgium it is now larger than in Luxembourg (despite the longer time-gap in Belgium). This is at least partly an effect of differences in the relative level of the subjective standards.

Of course, if, as has been argued above, the number of households that experience changes in poverty status depends partly on the level of the standard used, this is also true for the proportion of households poor in both waves. The comparisons must therefore be made with some caution.

However, even if the differences between countries could be wholly explained by the position of the standard within the income distribution, it would be wrong to regard them as only a statistical artefact. What one cannot do is conclude that there is less income mobility in Ireland. But, depending on the validity one is willing to grant to the various standards, one would still be justified in concluding that there is much more poverty of a longer-term nature in Ireland than in The Netherlands. In fact, it suggests that there are two types of gains in reducing inequality in the lower part of the income distribution: not

only will there be at any given moment fewer households below any given poverty line, but in addition the average duration of poverty spells will probably be shorter.

6.2 The social characteristics of households that have escaped poverty and those that stay in poverty

What is interesting is not only to know how many households stay in poverty but also to know *which social categories* have a high probability of experiencing longer-term poverty vs. short term poverty. In tables 6.3 to 6.6 longer-term poverty risks, escape ratios out of poverty, and the composition of the longer-term poor are shown broken down by some characteristics of the household or the head of household. Of course in many cases these characteristics may have changed in the second wave. However the effect of these changes on poverty, which is itself a crucial one, is not shown in the present analysis. Because of the sometimes large fluctuations in the subjective standards, this breakdown has only been carried out with the EC-standard. This has the disadvantage that, for some categories, the number of poor households is rather small.

From these tables it appears that in most cases the panel results on longer-term poor confirm the cross-sectional results: categories of households that are at high risk of poverty at one moment in time are also at high risk of being in poverty in two consecutive waves. The social composition of the poor in the first wave is generally closer to that of the longer-term poor than to that of the entire population. In many cases - but certainly not always - the differences are even reinforced. This is an important conclusion, as it means that even though the population of poor at a certain moment may include many that are poor for only a short time, the results of cross-sectional studies are generally not very misleading as regards the *structure* of poverty, and provide adequate indicators of the categories of households that are at high risk of being in longer-term poverty. Below I will therefore only note where the social incidence of longer-term poverty deviates from that of poverty at one moment, and the conclusions reached in section 4 regarding the social structure of poverty will not be repeated.

It is noteworthy that in most countries *unemployed* heads of household have a relatively high risk of being in poverty in both waves, and a relatively low probability of escaping poverty, if they are poor at a given moment. This is somewhat surprising, as one would expect that this category of households would show fairly strong mobility: some unemployed heads of household would have found work, others would be retired. This

result suggests that unemployed heads of household who do not change labor-market status find it very difficult to escape poverty.

On the other hand, the rate of transition out of poverty of *retired* heads of household is considerable, and in Ireland and The Netherlands it is even above the sample average. This is not only true for the low EC-standard, but also for the more generous subjective standards. This result is a little surprising, as retirement is generally an irreversible condition. Looking at other categories of households, that empirically more or less coincide with retired heads of household (head of household 65+ years, widowed heads of household, households composed of one or two elderly persons) the same patterns are observed. As might be expected, transition rates out of poverty are generally lower for the *very old*, *widows and widowers* and *single elderly persons* than for elderly heads of household below 75 years and for elderly couples. But even for these types of household, where one would expect few changes, there is considerable movement in and out of poverty. Only in Lorraine do less than 1 in 5 of poor households with these characteristics escape out of poverty.

By contrast, in Ireland, and also in The Netherlands, *younger households*, and those with *two or more children* have a rather low probability of escaping poverty. This is especially true for households with three children or more, where the poverty rate is already very high in the first place.

A category where one would expect much mobility across the poverty line are households with *very young heads* (< 25 years). However, only in Belgium and Lorraine do these households have a relatively high escape rate; in other countries, especially Ireland, they are more likely than the average poor household to remain in poverty. But the number of these households is in all countries too small to draw definite conclusions.

The last remark also applies to *divorced or seperated* heads of household. In The Netherlands and Belgium they appear to escape from poverty relatively easily, in most other countries relatively difficultly.

By the low EC-standard, in all countries except Ireland *single* persons that are poor in the first wave, have a relatively high rate of transition out of poverty. By the higher subjective standards, this is mostly not true, though.

In Belgium, *one-parent families* are more likely to stay in poverty than the average poor households, by all standards, but this is not true for The Netherlands. For the other countries, the numbers in the sample are probably too small to get meaningful results.

The general conclusion that can be drawn on the basis of these results seems to be that income mobility across the poverty-line occurs frequently in *all* (or almost all) social categories. This implies that even though the general risk of "longer-term" poverty is much smaller than that of poverty at one moment, its social incidence is not very much different. For a more detailed and precise analysis of transitions into and out of poverty more waves and, in some cases, larger samples are needed.

Table 6.3: Dynamics of poverty: characteristics of the "longer-term" poor and escape ratios, using the EC-standard, by *employment status* of the head of household.

| | % with characteristic poor in both waves | % with characteristic poor in 1st wave escaping poverty | % of all poor households in 1st wave with characteristic | % of all households poor in both waves with characteristic | % of all households with characteristic |
|--------------------------|--|---|--|--|---|
| BELGIUM: '85-'88 | | | | | |
| All (N=3035) | 2.4 | 58 | 97.5 | 96.9 | 100.0 |
| Head of household: | | | | | |
| - employed | 0,4 | 80 | 21.2 | 10.1 | 60.3 |
| - unemployed | 14,1 | 51 | 26.8 | 31.3 | 5.3 |
| - retired | 2,9 | 58 | 35.6 | 35.5 | 29.4 |
| - sick-disabled | 2,7 | 66 | 4.6 | 3.7 | 3.3 |
| - other | 24.8 | 26 | 9.3 | 16.5 | 1.6 |
| NETHER- | | | | | |
| LANDS: '85-'86 | | | | | |
| All (N=2700) | 2.6 | 60 | 97.7 | 95.5 | 100.0 |
| Head of household: | | | | | |
| - employed | 1,8 | 59 | 45.2 | 46.2 | 66.7 |
| - unemployed | 12,6 | 33 | 15.7 | 26.2 | 5.4 |
| - retired | 0,0 | 100 | 12.0 | 0.0 | 18.1 |
| - sick-disabled | 4,6 | 67 | 13.8 | 11.5 | 6.5 |
| - other | 8.9 | 58 | 11.0 | 11.6 | 3.4 |
| LUXEM- | | | | | |
| BOURG: '85-'86 | | | | | |
| All | 4.4 | 43 | 98.6 | 98.5 | 100.0 |
| Head of household: | | | | | |
| - employed | 2,8 | 42 | 39.6 | 40.4 | 63.5 |
| - unemployed | 49,5 | 23) | 8.4 | 11.3 | 1.0 |
| - retired | 6,0 | 42 | 26.2 | 26.7 | 19.6 |
| - sick-disabled | 11,1 | 41 | 13.6 | 14.1 | 5.6 |
| - other | 2.6 | 68 | 10.9 | 6.0 | 10.2 |
| LORRAINE: '85-'86 | | | | | |
| All (N=637) | 6.1 | 43 | 96.3 | 95.6 | 100.0 |
| Head of household: | | | | | |
| - employed | 3,7 | 58 | 49.3 | 36.0 | 59.3 |
| - unemployed | 42,2 | 14) | 13.8 | 20.8 | 3.0 |
| - retired | 6,0 | 42 | 18.5 | 20.7 | 30.0 |
| - sick-disabled | 20,8 | 0) | 4.1 | 7.2 | 2.1 |
| - other | 12.0 | 41 | 10.6 | 11.0 | 5.6 |
| IRELAND: '87-'89 | | | | | |
| All (N=787) | 10.2 | 36 | 100.6 | 101.3 | 100.0 |
| Head of household: | | | | | |
| - employed | 7,4 | 37 | 41.0 | 40.7 | 56.1 |
| - unemployed | 44,2 | 34 | 36.6 | 43.3 | 10.0 |
| - retired | 3,0 | 67 | 7.1 | 3.7 | 12.5 |
| - sick-disabled | 9,5 | 55 | 7.2 | 7.5 | 8.0 |
| - other | 4.7 | 55 | 8.7 | 6.2 | 13.4 |

Table 6.4: Dynamics of poverty: characteristics of the "longer-term" poor and escape ratios, using the EC-standard, by *age* of the head of household.

| | % with characteristic poor in both waves | % with characteristic poor in 1st wave escaping poverty | % of all poor households in 1st wave with characteristic | % of all households poor in both waves with characteristic | % of all households with characteristic |
|-----------------------------|--|---|--|--|---|
| BELGIUM: '85-'88 | | | | | |
| All (N=3035) | 2.4 | 58 | 99.3 | 98.9 | 100.0 |
| Age head of household: | | | | | |
| - 16-24 | 1.6 | 57 | 2.2 | 2.3 | 3.4 |
| - 25-49 | 2.3 | 60 | 49.9 | 47.8 | 49.9 |
| - 50-64 | 1.7 | 51 | 15.9 | 18.3 | 25.9 |
| - 65-74 | 2.7 | 61 | 16.2 | 15.1 | 13.4 |
| - 75+ | 5.0 | 57 | 15.1 | 15.4 | 7.4 |
| NETHERLANDS: '85-'88 | | | | | |
| All (N=2700) | 2.6 | 60 | 98.9 | 95.9 | 100.0 |
| Age head of household: | | | | | |
| - 16-24 | 7.2 | 53 | 9.4 | 11.1 | 4.0 |
| - 25-49 | 3.3 | 53 | 65.2 | 76.8 | 60.5 |
| - 50-64 | 1.0 | 81 | 17.3 | 8.0 | 20.8 |
| - 65-74 | 0.0 | 100 | 4.6 | 0.0 | 10.0 |
| - 75+ | 0.0 | 100 | 2.3 | 0.0 | 4.7 |
| LUXEMBOURG: '85-'86 | | | | | |
| All | 4.4 | 43 | 99.6 | 99.8 | 100.0 |
| Age head of household: | | | | | |
| - 16-24 | 5.3 | 26 | 3.6 | 4.6 | 3.8 |
| - 25-49 | 4.1 | 38 | 41.9 | 45.6 | 48.9 |
| - 50-64 | 3.5 | 46 | 22.3 | 21.0 | 26.4 |
| - 65-74 | 5.8 | 55 | 21.9 | 17.3 | 13.1 |
| - 75+ | 6.5 | 35 | 9.9 | 11.4 | 7.7 |
| LORRAINE: '85-'86 | | | | | |
| All (N=637) | 6.1 | 43 | 100.9 | 100.7 | 100.0 |
| Age head of household: | | | | | |
| - 16-24 | 3.8 | 86 | 10.5 | 2.6 | 4.1 |
| - 25-49 | 6.4 | 40 | 45.7 | 48.4 | 46.1 |
| - 50-64 | 5.0 | 46 | 28.6 | 27.3 | 33.3 |
| - 65-74 | 5.5 | 34 | 6.5 | 7.6 | 8.4 |
| - 75+ | 11.2 | 11 | 9.5 | 14.9 | 8.1 |
| IRELAND: '87-'89 | | | | | |
| All (N=787) | 10.2 | 36 | 100.8 | 100.8 | 100.0 |
| Age head of household: | | | | | |
| - 16-24 | 25.0 | 17 | 4.9 | 6.4 | 2.6 |
| - 25-49 | 14.6 | 29 | 62.7 | 69.7 | 48.7 |
| - 50-64 | 8.5 | 48 | 24.5 | 19.8 | 23.8 |
| - 65-74 | 2.7 | 60 | 7.9 | 4.9 | 18.6 |
| - 75+ | 0.0 | 100 | 0.8 | 0.0 | 6.4 |

Table 6.5: Dynamics of poverty: characteristics of the "longer-term" poor and escape ratios, using the EC-standard, by *marital status* of the head of household.

| | % with characteristic poor in both waves | % with characteristic poor in 1st wave escaping poverty | % of all poor households in 1st wave with characteristic | % of all households poor in both waves with characteristic | % of all households with characteristic |
|-----------------------------|--|---|--|--|---|
| BELGIUM: '85-'88 | | | | | |
| All (N=3035) | 2.4 | 58 | 97.6 | 94.4 | 100.0 |
| head of household: | | | | | |
| - married | 2.3 | 56 | 68.1 | 71.6 | 74.7 |
| - single | 0.7 | 85 | 6.2 | 2.2 | 7.7 |
| - widowed | 2.3 | 63 | 13.2 | 11.6 | 12.1 |
| - divorced/separated | 3.9 | 63 | 10.0 | 8.9 | 5.5 |
| NETHERLANDS: '85-'88 | | | | | |
| All (N=2700) | 2.6 | 60 | 98.2 | 95.3 | 100.0 |
| head of household: | | | | | |
| - married | 3.1 | 58 | 78.9 | 82.6 | 69.3 |
| - single | 1.7 | 71 | 13.6 | 9.8 | 15.0 |
| - widowed | 0.4 | 85 | 4.0 | 1.5 | 9.6 |
| - divorced/separated | 0.6 | 67 | 1.7 | 1.4 | 6.1 |
| LUXEMBOURG: '85-'86 | | | | | |
| All | 4.4 | 43 | 99.9 | 99.2 | 100.0 |
| head of household: | | | | | |
| - married | 4.9 | 36 | 67.3 | 74.9 | 67.3 |
| - single | 5.1 | 45 | 13.6 | 13.1 | 11.3 |
| - widowed | 1.6 | 75 | 13.9 | 6.0 | 16.5 |
| - divorced/separated | 4.5 | 34 | 4.4 | 5.1 | 5.0 |
| LORRAINE: '85-'86 | | | | | |
| All (N=637) | 6.1 | 43 | 100.6 | 100.9 | 100.0 |
| head of household: | | | | | |
| - married | 4.8 | 45 | 58.6 | 56.7 | 72.1 |
| - single | 5.0 | 72 | 16.9 | 8.4 | 10.2 |
| - widowed | 12.0 | 18 | 15.8 | 22.6 | 11.5 |
| - divorced/separated | 13.0 | 19 | 9.3 | 13.2 | 6.2 |
| IRELAND: '87-'89 | | | | | |
| All (N=787) | 10.2 | 36 | 99.8 | 99.3 | 100.0 |
| head of household: | | | | | |
| - married | 13.1 | 31 | 76.3 | 82.1 | 63.9 |
| - single | 5.8 | 54 | 10.3 | 7.5 | 13.2 |
| - widowed | 1.9 | 70 | 7.8 | 3.7 | 19.8 |
| - divorced/separated | 20.0 | 29 | 5.4 | 6.1 | 3.1 |

Table 6.6: Dynamics of poverty: characteristics of the "longer-term" poor and escape ratios, using the EC-standard, by *type of household*.

| | % with characteristic poor in both waves | % with characteristic poor in 1st wave escaping poverty | % of all poor households in 1st wave with characteristic | % of all households poor in both waves with characteristic | % of all households with characteristic |
|-----------------------------------|--|---|--|--|---|
| BELGIUM: '85-'88 | | | | | |
| All (N=3035) | 2.4 | 58 | 83.7 | 85.2 | 84.6 |
| - single elderly person | 2.7 | 60 | 12.1 | 11.6 | 10.3 |
| - single adult | 0.0 | 100 | 1.9 | 0.0 | 5.7 |
| - two elderly persons | 5.0 | 50 | 16.0 | 19.0 | 9.1 |
| - two adults | 0.8 | 76 | 9.3 | 5.2 | 15.6 |
| - two adults, 1 child | 0.9 | 74 | 8.8 | 5.4 | 14.3 |
| - two adults, 2 childr. | 2.6 | 52 | 14.9 | 17.0 | 15.7 |
| - two adults, 3 childr. | 4.4 | 52 | 9.7 | 11.2 | 6.1 |
| - one-parent househ. | 9.2 | 41 | 8.7 | 12.3 | 3.2 |
| NETHER- LANDS: '85-'88 | | | | | |
| All (N=2700) | 2.6 | 60 | 76.8 | 76.2 | 89.4 |
| - single elderly person | 0.0 | - | 0.0 | 0.0 | 8.7 |
| - single adult | 0.3 | 85 | 3.9 | 1.5 | 9.7 |
| - two elderly persons | 0.0 | 100 | 2.8 | 0.0 | 8.2 |
| - two adults | 0.0 | 100 | 6.8 | 0.0 | 15.7 |
| - two adults, 1 child | 1.6 | 68 | 9.2 | 7.3 | 13.6 |
| - two adults, 2 childr. | 4.6 | 45 | 26.6 | 36.8 | 12.7 |
| - two adults, 3 childr. | 9.4 | 52 | 19.1 | 23.1 | 6.4 |
| - one-parent househ. | 6.7 | 62 | 6.7 | 7.4 | 2.9 |
| LUXEM- BOURG: '85-'86 | | | | | |
| All | 4.4 | 43 | 79.1 | 76.0 | 76.1 |
| - single elderly person | 3.5 | 61 | 13.9 | 9.5 | 11.9 |
| - single adult | 1.9 | 63 | 6.0 | 3.9 | 9.0 |
| - two elderly persons | 9.7 | 44 | 16.6 | 16.3 | 7.4 |
| - two adults | 2.2 | 35 | 7.5 | 8.5 | 17.0 |
| - two adults, 1 child | 3.1 | 26 | 7.1 | 9.2 | 13.1 |
| - two adults, 2 childr. | 5.3 | 44 | 14.9 | 14.7 | 12.2 |
| - two adults, 3 childr. | 10.9 | 27 | 7.2 | 9.2 | 3.7 |
| - one-parent househ. | 3.6 | 50 | 2.5 | 1.5 | 1.8 |
| LORRAINE: '85-'86 | | | | | |
| All (N=637) | 6.1 | 43 | 71.1 | 75.5 | 76.9 |
| - single elderly person | 10.5 | 0 | 8.5 | 15.0 | 8.7 |
| - single adult | 14.3 | 40 | 21.6 | 22.7 | 9.7 |
| - two elderly persons | 2.8 | 50 | 4.3 | 3.8 | 8.2 |
| - two adults | 2.9 | 34 | 6.5 | 7.5 | 15.7 |
| - two adults, 1 child | 4.5 | 34 | 8.6 | 10.0 | 13.6 |
| - two adults, 2 childr. | 3.6 | 50 | 8.5 | 7.5 | 12.7 |
| - two adults, 3 childr. | 1.4 | 84 | 5.1 | 1.5 | 6.4 |
| - one-parent househ. | 0.0 | 100 | 3.5 | 0.0 | 1.9 |

(table 6.6 continued)

| | % with characteristic poor in both waves | % with characteristic poor in 1st wave escaping poverty | % of all poor households in 1st wave with characteristic | % of all households poor in both waves with characteristic | % of all households with characteristic |
|-------------------------|--|---|--|--|---|
| IRELAND: '87-'89 | | | | | |
| All (N=787) | 10.2 | 36 | 86.3 | 91.6 | 84.6 |
| - single ederly person | 0.8 | 67 | 2.4 | 1.3 | 16.1 |
| - single adult | 4.8 | 63 | 6.3 | 3.7 | 7.8 |
| - two elderly persons | 4.9 | 33 | 2.4 | 2.5 | 5.3 |
| - two adults | 7.7 | 33 | 4.8 | 5.1 | 6.7 |
| - two adults, 1 child | 8.5 | 44 | 7.0 | 6.2 | 7.4 |
| - two adults, 2 childr. | 14.4 | 23 | 13.6 | 16.4 | 11.6 |
| - two adults, 3 childr. | 22.6 | 20 | 35.9 | 45.0 | 20.3 |
| - one-parent househ. | 34.9 | 39 | 10.6 | 10.2 | 3.0 |

Concluding Remarks

The results presented in this paper lead to two kinds of conclusions. In the first place, on the methodological level, the poverty lines used are evaluated. Secondly, some conclusions can be drawn about the extent, social incidence and proximate causes of poverty in the countries of the EC studied here.

Firstly, how can we evaluate the usefulness of the poverty lines used here for studying poverty in the EC? As far as the political method is concerned, it is clear that it is not appropriate for comparative purposes. Its results are completely at odds with those of other poverty lines. It would in any case seem rather implausible that there is almost as much poverty in The Netherlands as in Ireland. Moreover, its applicability is limited by the fact that many countries do not have a nationwide guaranteed minimum income.

The subjective methods seem to work reasonably well if the results are considered for one particular country at one particular time, even though there are sometimes implausibilities in the equivalence scales. Across countries the results are not always convincing, however. The level of the subjective standards seems to be at least partially relative to average household income in a country, but there are important exceptions and deviations to this trend, which are difficult to interpret.

The levels of the subjective standards are rather generous, so that some might consider it inappropriate to regard all households below these lines as being in poverty. The term

'insecurity of subsistence' would perhaps be more suitable, but it is rather awkward (cf. De Vos and Garner (1991), who refer to these thresholds as "income sufficiency levels").

Rather disturbing, however, are the results across time, where the fluctuations are very large. As explained above, the reasons for this are not very clear, but real changes in the opinions of people, or changes in the data collection procedures do not seem to be the main sources of instability. Perhaps more refined models are needed. Because of this instability, the results of these standards can only be used for comparisons across countries and across years with considerable caution. The relative EC-standard, even though both level and equivalence scale have been rather arbitrarily set, seems to be better suited for this purpose, because it is by definition more stable.

These conclusions regarding the poverty line methods depend to some extent on the perspective taken. If the aim is to evaluate welfare states on their own terms, then the political or legal poverty line may well be a valid method (cf. Gustafsson and Lindblom, 1990). If one regards the EC as one Community, then one should take a Community-wide perspective and adopt a single poverty line for the whole of the EC (corrected for differences in price levels across countries). (cf. Teekens and Zahdi, 1990; Eurostat, 1990). In this paper the approach is strictly comparative. The aim is to evaluate in a national context how well, or how badly, social security systems succeed in lifting the lowest income groups to a certain income level, and also to see which kinds of people are left behind. The relative income standard is defined in relation to an indicator of the average standard of living in each country. These results can then be compared across countries. This approach seems to be defensible, because income transfers to households are at this moment still the responsibility of the national governments, and there is very little EC Community policy in this domain.

Nevertheless, it may be somewhat inappropriate in a comparative context to refer to all persons and households below the EC poverty line as 'poor', first because the definition of the EC-standard is largely arbitrary, secondly because it is not easy to show in what sense a Greek household just above the poverty line is less poor than a Luxembourg one just below it, when the real living standard of the Luxembourg household may greatly exceed that of the Greek one. (For a discussion on the relativity of poverty, see Sen, (1983) and Townsend, (1985). 'Relative low income groups' might be a less misleading term than 'poor'.

A relative standard, therefore, seems to be the best choice among the poverty lines definitions considered here. But it need not be the relative standard used here. Although

the equivalence scales of the subjective standards vary across countries and across years, they are in all cases considerably less steep than the scale built into the EC-standard (1.0 - 0.7 - 0.5), which is the one recommended by the OECD (1982). This difference in equivalence scales is found to have an important effect on the measured characteristics of the poor. Given these findings, one might want to consider whether a relative standard with a flatter equivalence scale is not better suited for use within EC-countries.

Rather briefly, the empirical results regarding the extent and social incidence of poverty can be summarized as follows. As has been found in other studies, the extent of poverty is much greater in the 'peripheral' EC-countries Ireland, Greece and Catalonia, than in the 'central' ones Belgium, The Netherlands, Luxembourg and Lorraine. In the former countries the number of households below the relative EC-standard exceeds 15%, while the aggregate poverty gap by the same standard is equal to 2% or more of aggregate household income. In the Benelux-countries, the poverty rate is around 6 to 7%, while the poverty gap constitutes less than 1% of aggregate household income.

Looking at the characteristics of the poor, a number of factors are found to be associated with poverty in all countries. In general, households with no, or a weak attachment to the labor market (as indicated by the labor-market status of the head of household, and the number of earners in the household) are at a higher than average risk of poverty. In particular, households where the head is unemployed have a very high risk of being in poverty. Furthermore, households other than the traditional family (couple with or without children) are also relatively likely to be in poverty. If the head is divorced or separated, the risk of poverty is considerably higher than average. Single parents are also relatively likely to live in poverty.

However, there are also important differences in the characteristics of the poor across countries. Very young householders are at high risk of poverty in the northern countries, but not in the southern. In Greece, poverty is much more prevalent among households with one or even several persons at work than in the other countries. In Ireland, poverty seems to be concentrated with two-parent families with many dependent children, while the elderly appear at comparatively low risk of poverty.

An interesting finding is that a large minority among the poor in all countries consists of households where the head is working, even though the poverty incidence in this category of households is not particularly high. In most of these cases, the head is probably the sole breadwinner.

The impact of social security transfers on poverty appears to be much smaller in the southern countries Greece and Catalonia, than in the Benelux and Lorraine. The main reason seems to be that in the southern countries fewer resources are devoted to social security transfers. This might be among the causes of the higher incidence of poverty in these countries. In the Benelux countries social security transfers are in theory amply sufficient to completely fill the poverty gap, and they are indeed fairly effective in eliminating poverty. Some poverty remains, however, because the transfer system is not very efficient, from the point of view of minimum income provision. Many pre-transfer poor households receive social security transfers that are considerably in excess of what they strictly need to reach the poverty line. (The reason for this is, of course, that social security transfers have other functions besides poverty alleviation.) In Ireland, on the other hand, the pre-transfer poverty gap is relatively high, mainly because of high unemployment among main breadwinners, and social security resources are not proportionally larger. Therefore, rather many households are left in poverty, even though the transfer system is relatively efficient from the point of view of poverty alleviation.

The longitudinal analysis indicates that the number of households that are poor during several years, is much smaller than the number of households that are poor in a particular year or month. Mobility into and out of poverty appears to be extensive in all countries, but more so in countries where the poverty rate is relatively low to begin with. This implies that the number of longer-term poor is relatively high in Ireland. Furthermore, the results also suggest that there is considerable poverty mobility in all social categories, including the elderly. An implication of this finding is that the structure of longer-term poverty is not very different from that of poverty at a particular moment.

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Appendix

Table A.1: Level of poverty lines, in monthly amounts (ECU, in prices of Jan. 1988) by type of household*

| | CSP-standard | | | | | | | SPL-standard | | | | | | |
|-------------------------------|--------------|--------------|-------------|-------------|-------------|-------------|---------------|--------------|--------------|-------------|-------------|-------------|-------------|---------------|
| | Belg. '85 | Neth. '86 | Lux. '86 | Lor. '86 | Irl. '87 | Cat. '88 | Greece '88 | Belg. '85 | Neth. '86 | Lux. '86 | Lor. '86 | Irl. '87 | Cat. '88 | Greece '88 |
| single elderly person | 509 | 528 | 637 | 478 | 305 | 361 | 368 | 639 | 616 | 747 | 685 | 385 | 706 | 378 |
| single active | 560 | 570 | 771 | 587 | 325 | 556 | 549 | 639 | 616 | 747 | 685 | 385 | 706 | 607 |
| two elderly persons | 662 | 706 | 845 | 723 | 532 | 624 | 416 | 797 | 743 | 902 | 816 | 531 | 925 | 495 |
| one adult, one elderly person | 769 | 747 | 978 | 832 | 482 | 794 | 534 | 797 | 743 | 902 | 816 | 531 | 925 | 584 |
| two adults | 806 | 789 | 1112 | 940 | 551 | 798 | 666 | 797 | 743 | 902 | 816 | 531 | 925 | 707 |
| two adults, one child | 933 | 836 | 1249 | 1100 | 796 | 973 | 796 | 875 | 830 | 1007 | 928 | 642 | 1084 | 863 |
| two adults, 2 children | 1023 | 863 | 1330 | 1195 | 831 | 1094 | 890 | 935 | 897 | 1089 | 1033 | 734 | 1213 | 871 |
| two adults, 3 children | 1051 | 882 | 1395 | 1262 | 855 | 1296 | 829 | 991 | 953 | 1168 | 1134 | 815 | 1223 | 942 |
| one adult, one child | 736 | 617 | 908 | 746 | 570 | 731 | 594 | 762 | 743 | 902 | 816 | 531 | 925 | 762 |
| one adult, 2 children | 817 | 644 | 1016 | 841 | 606 | 852 | 653 | 850 | 830 | 1047 | 928 | 642 | 1084 | 715 |

| | EC-standard | | | | | | | Legal standard | | | | |
|-------------------------------|--------------|--------------|-------------|-------------|-------------|-------------|---------------|----------------|--------------|-------------|-------------|-------------|
| | Belg. '85 | Neth. '86 | Lux. '86 | Lor. '86 | Irl. '87 | Cat. '88 | Greece '88 | Belg. '85 | Neth. '86 | Lux. '86 | Lor. '86 | Irl. '87 |
| single elderly person | 313 | 367 | 474 | 341 | 223 | 314 | 194 | 336 | 482 | 519 | 275 | 204 |
| single adult | 313 | 367 | 474 | 341 | 223 | 314 | 194 | 336 | 478 | 519 | 280 | 211 |
| two elderly persons | 530 | 624 | 805 | 579 | 380 | 534 | 330 | 465 | 688 | 710 | 401 | 349 |
| one adult, one elderly person | 530 | 624 | 805 | 579 | 380 | 534 | 330 | 465 | 722 | 710 | 406 | 369 |
| two adults | 530 | 624 | 805 | 579 | 380 | 534 | 330 | 465 | 694 | 710 | 409 | 425 |
| two adults, one child | 683 | 808 | 1049 | 750 | 491 | 690 | 465 | 491 | 745 | 789 | 497 | 490 |
| two adults, 2 children | 838 | 991 | 1281 | 920 | 603 | 847 | 602 | 588 | 805 | 869 | 577 | 560 |
| two adults, 3 children | 996 | 1174 | 1586 | 1091 | 715 | 1004 | 738 | 722 | 874 | 948 | 673 | 609 |
| one adult, one child | 465 | 551 | 745 | 511 | 335 | 478 | 330 | 364 | 684 | 599 | 416 | 288 |
| one adult, 2 children | 624 | 734 | 1088 | 682 | 447 | 628 | 466 | 465 | 755 | 678 | 519 | 375 |

* elderly person: man 65 or over; woman 60 or over.
 child: person of 16 years or younger, or in full-time education.
 The list of household types is not exhaustive.

adult: non-elderly adult.

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CONFUSIONS BETWEEN GOALS AND METHODS IN
THE CONSTRUCTION AND USE OF POVERTY LINES.

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ABSTRACT.

Many definitions of poverty and of poverty lines have been developed since the time of Booth's and Rowntree's surveys in Britain at the end of the nineteenth century, and there has been much argument about them ever since. For instance, Rowntree's concept of primary poverty or minimum subsistence has been adapted to other uses for which it was not designed and then criticised for unsuitability. Others have proposed different models and definitions of poverty without sufficient concern for their distinct objectives and effective functions. In particular, there has been longlasting confusion between the empirical description of minimum living standards and the prescriptions for minimum income levels, and between poverty line minima and social security maxima. To emphasise that this is not simply an academic matter, the paper points to the tragic social policy consequences for large numbers of poor people of the British failure to distinguish the purposes of different definitions of poverty.

If there is to be more constructive discussion and policy making, reconsideration and clarification are overdue. The paper reviews semantic distinctions and a classification of different approaches to defining and measuring poverty by their principal purposes and matters of judgement in operationalising them. It invites discussion to further the development of research measures more directly linked to their purposes, in the interests of a better understanding of the dynamics of poverty at all levels.

INTRODUCTION

The British failure throughout the twentieth century to distinguish between the different purposes for which poverty lines were devised has condemned the poor in the UK to a level of social assistance too low for social participation¹. Further, the failure by sociologists, economists and others to gain electoral credibility for their claims about 'the real poverty line' and the inadequacies of the social assistance scales of benefit has allowed insouciant British officials and politicians to dismiss these claims of inadequacy as mere subjective opinion². Although this paper is in many senses academic, its subject therefore has profoundly serious implications, not only for the quarter of the British population who are currently estimated to be poor by some definitions³, but also for the 'comfortable two-thirds' who ought to be educated about the problems their fellow-citizens suffer⁴ and contribute their material and political resources to solving them (for such are my beliefs).

For some years I have been trying to trace the history of the British policy-making which has led to this governmental neglect, or at times even deliberate perpetuation, of the avoidable human suffering of poverty⁵. Such studies remind us that the plethora of competing definitions and measures of poverty, including those which are being expressed and discussed at this conference, have a long history. There is a history to be written on the academic and political discourses of poverty⁶, and it is marked by

¹ Among the most recent sources of evidence see for instance Ruth Cohen et al, *Hardship Britain: being poor in the 1990s* [1992], or the Department of Social Security's own research report by Huby and Dix 1992.

² Moore 1989; DSS 1989 para 4.7.

³ Oppenheim 1992 p 7: in 1988/89, 12 million, about 22% of the population, lived below 50% of average income after housing costs.

⁴ Abel-Smith described this in 1984 as one of the functions of poverty studies; quoted in Atkinson 1991 p 5.

⁵ I want to thank the great many colleagues who have helped me with this project, too many to name individually here, though I must mention the Leverhulme Trust with gratitude for its research grant.

⁶ Himmelfarb 1984 takes the saga up only to the end of the nineteenth century. A second volume was in preparation at one time.

confusion. The participants at this conference are as likely as anyone else to disagree on 'the right definition' of poverty to apply. But why should there not be many 'poverty lines' for different purposes? The question is, do we have the right ones for our specific purposes?⁷

Perhaps this and similar issues also arise in the international context. My limited reading of parts of the very extensive international literature, one which has expanded greatly during the past two decades, suggests at least three possible reasons for the ineffectiveness, the disagreements and confusions. One is when writers on the topic fail to preface their arguments with clear statements about the purposes for which they wish to define poverty or design tools with which to measure some form of it. Which phenomenon of poverty (as an unsatisfactory level of living, of experience as well as of consumption) is the focus of their concern seems sometimes to be an unexamined question. Just as writers such as Max Weber or Gunnar Myrdal⁸ had to emphasise and reiterate the importance of acknowledging the inherent values in all expressions of problems, so it would seem to be equally essential to specify clearly the objectives of one's enterprise before the appropriateness of its tools can be evaluated.

Second, writers on poverty commonly take it for granted that the problem of the sufferings of the poor ought to be solved. But why should it be? One thing which we learn from British political history is that this assumption is naive and unsophisticated. Ever since the Poor Law Amendment Act of 1834 it has been clear that in Britain powerful politicians and electorates continue to see the maintenance of other people's poverty as both functional and desirable⁹.

⁷ Ringen 1987, 1988, addressed aspects of this question.

⁸ Myrdal 1958.

⁹ Gans 1972 gives some slightly facetious reasons which may appeal to those unpersuaded by the Marxist critique.

As a result, when writers on poverty still indulge unreflectively in 'package deal thinking'¹⁰ (that is, conflating their taken for granted values with their analysis of the facts and their prescriptions for action), those who ideologically reject their strategies in effect deny their facts and ignore their values. Instead, each needs to be clearly and separately specified, so that the facts of the suffering of poverty may be seen as incontrovertible (if they are), and the argument is focused on the application of moral values and political ideologies to strategies for the alleviation of part or all of the suffering. The current British government method for avoiding the embarrassment which clarity about conflicting values and ideology might expose is to obscure the statistical basis of estimates of poverty¹¹. And greater explicitness about values might expose fundamental disagreements over the class-cultural stratification of criteria of minimal adequacy ("it's adequate for those people but not for me").

The third reason for muddle is simply the inadequacy of the tools we use for our objectives. For instance, the poor in Europe are nowadays commonly counted using either of two indirect, proxy, measures. One is a statistical measure¹² which may be admirable for revealing changes in the position of deciles in the distributions but tells us nothing about the real level of living, tolerable or intolerable, experienced by people at any particular decile of the income distribution in different countries or at different times¹³. The other is an attitudinal measure¹⁴ which may be admirable for exposing subjective perceptions of income adequacy but tells us nothing about the variety of other contextual factors surrounding the

¹⁰ Fox 1979 makes the analogy with holidays where one buys the flight, the hotel and the entertainment in one package deal. We might however want one without the others.

¹¹ The events are summarised in Townsend and Gordon 1992.

¹² The Luxembourg Income Study measures and similar versions.

¹³ Deleeck and Van den Bosch 1992 p 110.

¹⁴ The set of Leyden and Antwerp subjective measures.

subjects in different places and times which contribute to the objective levels of living within which their attitudes are formed and expressed¹⁵.

As poverty is directly a matter of inadequate levels of living if it is anything, these indirect proxies may mislead us about the real thing, to say the least. Opponents of the view that European poverty causes suffering confuse relative with inequality measures and dismiss both as simply ideological¹⁶. But as Arthur Koestler wrote about the Holocaust, statistics don't bleed¹⁷. We need something better for our various purposes.

The pattern of the paper is as follows. The next section outlines the history of the development of some definitions and measures of poverty in Britain, to illustrate the assertions above about muddle¹⁸. I then attempt to organise the different definitions and measures developed in Britain and elsewhere into a classification by the purposes for which they have been developed, drawing attention to the many matters of judgement which remain to be considered. The question of which tool to use is by no means merely a technical one.

Although stipulating the meanings which one thinks words ought to have may be a fatuous exercise, the final section tries to draw together some of the issues on which a great many of us in the field have spoken and written, in an attempt to stimulate discussion towards greater agreement on concepts, terms and objectives. International semantic standards in the social sciences applied to poverty research may be chimerical, but less confusion might be more productive. And who knows: it might even help better policy making for the poor.

¹⁵ Veit-Wilson 1987.

¹⁶ Moore 1989.

¹⁷ Arthur Koestler, *Arrival and Departure*.

¹⁸ This section is a summary of material which I have set out at greater length and with scholarly apparatus in two published papers [Veit-Wilson 1989 and 1992a] and one to be published [Veit-Wilson 1992b]. The section is therefore less peppered with the numerous extensive and detailed references which can be found in the published papers.

A CENTURY OF BRITISH MUDDLE.

In the history of changing British ideas about poverty, three strands are relevant here.

First is the *class-cultural stratification of standards of adequacy* mentioned above. The degree of perceived social stratification of the baseline participatory life-styles continues as a kind of unremarked *obligato* within the British discussion, changing in theme and volume. For Rowntree in 1901, the assumed stratification of life-style between middle and working class was so unproblematic that he could simply take the respectable working class as the comparator baseline for measuring deprivation. The public issue of whether the level and tone¹⁹ of social security was adequate if it was not good enough for the middle classes seems to have become a conscious matter only as more and more of the elderly middle classes became potential beneficiaries. The 1960s have been suggested as the period in Britain when the increasing homogenisation of aspirational life-style, especially among younger people, made the class stratified comparison no longer so widely acceptable. This change may also have added weight to the plausibility of the paradigm shift, from perceiving poverty as minimum subsistence (or as lower than working class wages), to the use of relativistic referents (worse than one's appropriate participatory position, irrespective of class).

The issue of the class-cultural stratification of reference standards is very important but often neglected in the 'package deal' British poverty debates which take the highly problematic egalitarianism of the left for granted. It would, I imagine, be more transparent to the heirs of the Bismarckian tradition for the bases of social security minima. Related as it probably is to the political perception of the homogeneity of the population (or relevant electorate), the stratification of minimum

¹⁹ Veit-Wilson 1987 p 207.

standards may become a more salient issue in social security politics as European societies are perceived to become more differentiated in ethnic and other aspects of their life-styles (for instance, "those immigrants from poorer countries can make do with a lower standard of adequacy in this country than we could"). The point is that the issue of the nature and content of the lowest minimum standard may once again become critical for minimum physical subsistence, let alone relative deprivation.

The second strand is the way in which the British discussion of poverty changed its dominant paradigm in the first third of the century from poverty as deprived *life-style* to poverty as subsistence *income*. We live with the confused consequences. Poverty became defined as the low income which was really only the indirect measure of the deprived life-style. The search for the income level persists, even in the empirically-based behavioural, attitudinal or deprivation indicator approaches which define poverty as exclusion from, or lack of resources of money or other kinds sufficient for, a socially-defined participatory life-style²⁰, and which search for its income correlates. As Ringen suggested, we should really be searching for the direct measures — and Donnison's contemporaneous reply suggested one possible resolution²¹.

Parallel with this changing paradigm, the third strand is the concept of *minimum subsistence*. This is often expressed in terms of 'absolute' poverty, as it is based on the calculation of the cost of providing for four physiological needs: food, clothing, fuel/hygiene and shelter²². It prescriptively excludes all expenditures to meet social and psychological needs: it is *asocial*. The essential qualifying adjective 'minimum' is often dropped, but the term 'subsistence' was used in this historical discussion

²⁰ Veit-Wilson 1987.

²¹ Ringen 1988; Donnison 1988.

²² All of which are experienced in culturally relative ways, which is why the absolute/relative distinction is meaningless, even if still widely and confusingly used.

to mean 'at the physiological minimum'; it did not include subsisting at higher living standards.

The concept of minimum subsistence passed through three stages: Rowntree used its apparent scientific objectivity as a heuristic device; others then used it as a survey tool; and finally it was used to rationalise 'less eligible'²³ social security benefits. To demonstrate the unthinking functional misuse of the concept, the next section summarises this process.

At the end of the 19th century, Booth counted the poor in London using a visibly deprived life-style as the criterion of poverty, and Rowntree replicated his study in York using similar methods (neither counted the poor by income level). But counting the poor by the appearance of their squalid life-style did not answer Rowntree's additional question, *why* were they poor: was their deprived life-style the result of their 'improvidence' or imposed on them by 'insufficiency of income'? To provide an explanation, Rowntree developed the methodological tool of 'primary' poverty [P1]. Rowntree repeatedly emphasised that the P1 measure was not a level of income on which even the working class could live. But he chose the criterion of 'merely physical efficiency' as its basis to pre-empt any middle class criticism of its generosity. The P1 measure used the respected methods of science (nutrition and social research) to find the lowest cost of the four standard components of physiological subsistence: food, clothing, fuel/hygiene, and housing costs²⁴.

Rowntree himself was perfectly aware from the outset that the P1 measure was relativistic in composition and in no sense 'scientifically

²³ A term from the 1834 Poor Law Amendment Act meaning that benefits should be less attractive than the wages of the lowest paid labourer. The principle is still honoured in Britain, using the discourse of work incentives, as the country has no official standard of minimum income adequacy against which to measure the (in)adequacy of low wages, social security scales or tax thresholds.

²⁴ Rowntree 1901, 1903; Hennock 1987, 1991; Veit-Wilson 1986a, 1986b.

absolute', and he emphasised the arbitrary nature of the level he chose. In addition to physiological needs he realised that human social life required "expenditure needful for the development of the mental, moral, and social sides of human nature", as well as functional "expenditure for sick clubs or insurance" and the like, and that there is expenditure which "may be in the truest sense 'useful' which is not necessary for the maintenance of *merely physical efficiency*"²⁵. These would also have to be costed and included in any prescription for a minimum income for real people to live on.

While in 1899 he was concerned with explaining why some people were poor and not with the level of income at which they need not be poor, when he became Director of Welfare for the British government's munitions workers in the first world war he was concerned with finding out whether they were paid enough. As a criterion of minimum wages, he therefore devised a budget which took account of social expenditures: the Human Needs of Labour standard [HNOL]²⁶. While this was still within the prescriptive paradigm, it took some account of convention in its dietary and social expenditures, items which had been explicitly excluded from the P1 subsistence measure. It was designed as a realistic minimum for social life. However, this distinct measure seems to have failed to attract enough attention to supersede the subsistence definition of poverty in public consciousness.

Rowntree himself was clear about the differences between the purposes of definitions and measures of poverty. Recognising that poverty was a changing relative concept demanding changing measures, in his 1936 study of poverty in York, he used three different measures for different purposes. He used the HNOL definition to measure the extent of poverty as inadequate income. He recognised that this underestimated those who lived a deprived

²⁵ Rowntree 1901 pp 86-87; original emphasis.

²⁶ Rowntree 1918; revised 1937.

life-style for whatever reason, and described the additional 7 to 10 per cent as living in poverty as well. Third, he used his P1 definition as a constant to measure the changes in the extent of this kind of poverty. His use of three distinct measures has rarely been subsequently noted²⁷.

Rowntree's achievement in designing the P1 measure in 1899 was not simply to test and disprove the widespread contemporary assumption that all deprivation was self-imposed. He provided the first objective measure of one kind of poverty, defined as income so low as to be sufficient only for physical subsistence. This made it an invaluable tool for further comparative replications of the surveys of the extent of poverty, even if that was not Rowntree's intention. The tool avoided the subjective assessments of 'obvious want and squalor'²⁸ which failed to deal with the problem of discovering hidden deprivations. That the income level was unrealistically asocial did not matter for the new purpose; what mattered was that it was an objective constant providing incontrovertible evidence of subsistence poverty.

The second stage was the translation of Rowntree's tool for explanation into a tool for counting and comparing. The statistician Arthur Bowley and his colleagues used the P1 measure in a number of studies of urban poverty during and after the first world war²⁹. In the interwar period there were at least nine more social surveys using versions of the P1 measure³⁰. Hennock has shown that Bowley was interested solely in having a research tool for the purpose of making reliable comparisons and not in the social meanings of the P1 income level he adopted from Rowntree. Bowley was himself quite clear that the scientific basis of the subsistence measure was questionable, and that it was too low for real social life³¹,

²⁷ Veit-Wilson 1986a.

²⁸ Rowntree 1903 p 19.

²⁹ Bowley and Burnett-Hurst 1915; Bowley and Hogg 1925; see also Hennock 1991.

³⁰ For details see Townsend 1952.

³¹ Bowley and Hogg 1925 pp 13-14.

but these qualifications do not seem to have had as much publicity as his methods and findings. Hennock's view was that "to call this quantity 'poverty' *tout court* was taking crassness rather far"³² and criticised "Bowley's highly questionable adaptation of the concept of primary poverty to purposes quite different from those for which Rowntree had originally designed it"³³. That is not to say that all those who used the research tool were blind to the abuse of the concept: Hennock quoted Llewellyn Smith, author of the replication of Booth's survey of London (to which Bowley contributed), as writing in the late 1920s that:

a poverty line which leaves no margin for any expenditure on amenities beyond satisfying the barest physical necessities does not correspond to modern ideas as to the true connotation of the word 'poor'.³⁴

Nevertheless, Bowley's national eminence as a social statistician seems to have given weighty methodological approval to the use of the unqualified term 'poverty' for the P1 subsistence measure. Thus, by the 1930s, the common concept of poverty used in both poverty research and the discussion of policy consisted simply of the assumed cost of the four subsistence components. Widespread anxieties about malnutrition led experts to propose minimum dietary standards: science defined the problem and the cost of curing it, and these standards affected the food element of influential new subsistence calculations such as those of R F George³⁵.

The implication of subsistence was that incomes higher than this would be sufficient to deal with the problem of cash poverty (though perhaps not all of the 'improvident' behaviour of the poor). In this sense, many people may have been confused in failing to give the distinction between the minimum costs of physical and of social life the importance it deserved. Rowntree's development and revision of the Human Needs of Labour

³² Hennock 1991 p 209.

³³ Hennock 1987 p 222.

³⁴ Quoted in Hennock 1991 p 212.

³⁵ George 1973.

standard [1937] does not seem to have been widely perceived as an *irreducible* minimum for *social* life. As influential a person as William Beveridge was confused about the essential distinction between the two measures³⁶.

The third stage was the translation of the subsistence measure to a prescription for social security scales (or in fact to a *post hoc* rationalisation of their adequacy). The first example in British government policy-making was the setting of benefit rates by the newly founded Unemployment Assistance Board in 1934³⁷. This process was complicated by comparisons which drove the policy making. Since the 1920s the Ministry of Health was caught between requiring the Poor Law benefits to be simultaneously less eligible and adequate, at a time when many wage rates were inadequate. In the absence of coherent policy, its evasion was to leave the matter to the discretion of local Poor Law authorities³⁸. Local Public Assistance benefits were often more generous than the UAB's proposed national Assistance scales, but these also had to be below the existing unemployment insurance benefits, otherwise the contributory principle would be undermined. But this was absurd, since insurance benefits had been asserted in 1911 to be only a contribution towards needs, while Unemployment Assistance was meant to cover needs³⁹.

Although in 1934 the government claimed in public, as Beveridge did in 1942, that the proposed scales of benefits were based upon scientific estimates of minimum subsistence needs, in fact and in private the principle of less eligibility ruled on both occasions. It was explicit in 1934 and implicit in 1942. In 1935 the government's deceit was compounded. Privately it knew that the scales were inadequate even for children's nutritional needs and household replacements; in public it claimed that the

³⁶ Veit-Wilson 1992a.

³⁷ Lynes 1977.

³⁸ Briggs and Deacon 1973 p 46.

³⁹ Macnicol described the intellectual contortions: 1978 pp 188-189.

weekly allowances were enough for *all normal foreseeable needs*, not only food and rent but the renewals of clothing and household equipment, long term as well as short term. The mendacity was rationalised on the grounds that large numbers of working class families in full time work normally had to manage on these income levels; it was an exercise in stratified class standards (and hypocrisy).

To cut a long story short, I have argued elsewhere⁴⁰ that the evidence suggests that the Beveridge Committee indulged in similar muddle or mendacity in arriving at its proposed social insurance benefit scales. The British scales are still in principle roughly based on Beveridge's concept of subsistence⁴¹. Beveridge's assertion that his benefits were adequate in amount and time⁴² was, I suggest, responsible for condemning the British poor to blame for not managing to live adequate social lives on subsistence incomes. It is tragically ironical that Rowntree devised the concept for the precisely opposite purpose: to show that social lives could not be led on such low levels of income. The British poor pay the price in stunted lives and earlier deaths⁴³.

This brief historical review of the British misuse of poverty definitions and measures to oppress poor people exemplifies the importance of clarity and consistency between purpose, definition and measure. The next section outlines the purposes for which definitions and measures of poverty have been developed since the time of the first poverty surveys, and then reviews some aspects of the judgements which have to be made when implementing the various methods which have been used or proposed.

⁴⁰ Veit-Wilson 1992a, 1992b.

⁴¹ Nicholson 1975 pp 3-4.

⁴² Beveridge 1942 p 122.

⁴³ Townsend et al 1988.

SOME PURPOSES FOR POVERTY MEASURES.

1. To count the numbers defined as poor in the population. For this purpose, the definition of poverty must point to a clear criterion as a measure. Booth and Rowntree used a direct method subject to class stratification: middle-class agreement on the unequivocal appearance of a poor life-style ("obvious want and squalor"; "the pinched faces of the ragged children told their own tale of poverty and privation"⁴⁴). Other methods use indirect methods or proxies for deprived life-style such as income levels or proportions of expenditure on food.

2. To explain why people appear poor: do they have access to sufficient resources not to suffer poor life-styles? This is not the same as explaining *why* they have too little money. Rowntree devised the primary poverty, minimum subsistence, measure as a heuristic device aimed at the non-poor to help them distinguish those poor who had too little money even for merely physical efficiency from those who had more income than this, but who still looked poor because they spent it on social necessities (as they defined them behaviourally)⁴⁵. Both sets of poor had too few resources not to look poor, but the measure explained why one set could not have achieved even physical subsistence, let alone social conformity.

Some of the current concerns about the *marginalisation* and *exclusion* of social groups have similar explanatory purposes. In these instances, attention is focused less on disposable incomes than on social resources such as non-marketed status (of which class, gender or ethnicity may be examples), residential location or labour market participation as factors hindering individuals and groups from achieving participatory life-styles.⁴⁶ These groups are not poor because they are (for instance) unskilled, women or black; they are handicapped in achieving participation,

⁴⁴ Rowntree 1901 pp 115-6.

⁴⁵ For further discussion see Veit-Wilson 1986b.

⁴⁶ Robbins 1991.

just as Rowntree's poor in primary poverty were handicapped a century ago, by special extrinsic factors in their lack of resources, and these factors have to be identified and explained.

3. To prescribe a poverty line: a minimum level of money income on which people ought to be able to live and avoid deprivation (as defined by the prescriber) if they spend their money as prescribed.

This was Rowntree's purpose in devising and publishing his HNOL prescriptions for minimum wages in 1918 and 1937, though he was more concerned to show employers and the public what the minimum should be than to tell working people how to live their lives. But the prescriptive purpose has often been ascribed to those who have promoted subsistence measures as the basis of social security scales, such as British government officials and William Beveridge. I think this is a mistaken interpretation; both officials and Beveridge privately admitted that the division of the scales they proposed into elements for the four components of subsistence were post-hoc rationalisations of total sums chosen on less eligibility grounds, and not the sum total cost of a subsistence shopping basket constructed from its discrete elements.

In other words, the prescription was not that social life should be lived on the cost of the four components of subsistence alone, but was instead a order that 'you must live on this because millions of working people have wages no higher'. This might be a justifiable prescription if the lowest wages could be shown to be sufficient for social participation, although it would still leave the question of stratification of standards and the values of egalitarianism or elitism open to question.

'Official poverty lines': this may also be the place to comment on the use of governmental minimum social assistance scales as a definition of a kind of 'official poverty line'. I believe that this is a serious methodological mistake. Insofar as such scales are not based on any kind of

empirical evidence of the minimum necessary incomes, they are no more than political and economic estimates of the most that governments are willing to pay the poor, or some of them. A minimum social security or social assistance scale is no more than that: it has no necessary relationship with the amount of money people need not to live in poverty.

It is true that the governments of some countries do have surveys, carried out to establish some kind of minimum income standard, based on some conception of minimum necessary income. But those which do so, do not necessarily pay their social security or assistance benefits at these levels⁴⁷; it seems that such standards are used as guides not templates.

However, it may be justifiable to count the population existing on income levels similar to those of social assistance recipients if the purpose is to compare population groups. This is what Abel-Smith and Townsend did in Britain in the 1950s⁴⁸. But as soon as such official assistance benefits are taken as implying an *adequate* minimum income standard they become dangerously misleading, unless there is independent empirical confirmation of their adequacy. What is clear from British experience is that government assertions of adequacy are, on their own, empirically unfounded and indefensible.

4. To report a poverty line: a minimum level of money income on which the surveyed population on average thinks it would be able to live and avoid deprivation as it defines it ("just make ends meet"). This is the purpose of the various attitudinal surveys of minimum income adequacy from the first Gallup Poll 'standard of living index' in USA in 1937⁴⁹ through to the highly sophisticated Leyden and Antwerp methods of today.

⁴⁷ For instance, Sweden was not doing so in the 1980s: Vogel et al 1988 pp 126-7; Gustafsson 1984 chapter 5.

⁴⁸ Abel-Smith and Townsend 1965.

⁴⁹ Gallup 1966.

5. To discover a poverty line: a minimum level of money income on which empirical research shows that the surveyed population manages on average in practice to avoid what it defines as deprivation.

The difference between this purpose and the previous one is this. The aim of reporting is to find an indirect (income) measure of level of living in societies in which having adequate personal disposable incomes plays a large and important part, both psychologically and economically, in achieving a satisfactory level of living. It therefore has to take all else (such as non-marketed resources) in that society or nation for granted. On the other hand, the aim of discovery is to go straight to the direct measure by surveying socially defined necessities of consumption and experience, and then to see if this correlates with income — or, as it indeed may do, with other resources. It may take other resources for granted but need not do so, and it would better explain the dynamics of poverty if it were not confined to money resources alone.

Mack and Lansley explicitly confined their study to those marketable necessities which were the objects of personal expenditure, because they wanted to find the correlation, if any, with disposable incomes: what minimal income, in Britain, did people need? But one could hypothesize a study which would investigate a wider range of necessities, including both those which are in the private relational and non-marketed domain and those in the public service arenas. Such a study would give a better picture of the extent to which other resources (such as but not only status, gender or ethnicity) interact with economic resources to affect the total level of living. It could include the psychological factors which allow people to trade-off the senses of well-being against material levels of living.

This is a field largely developed by the Scandinavian researchers⁵⁰ but (if I have understood them) their purpose was more to study the whole population's level of living and well-being than to discover where, on scales of power over resources through time, the cutoff points of deprivation or poverty fall — the question which has preoccupied the British researchers. It is an interesting example in the sociology of sociology of the way in which some of the most important problems are conceptualised and interpreted quite differently in different cultural value contexts (I reluctantly forbear to generalise further about the distinctions, but they could be revealing).

QUALIFICATIONS AND JUDGEMENTS.

Implementing the purposes outlined inevitably involves making judgements, none of which are simply technical matters, and all of which raise further questions of values and objectives. All of us in the poverty research field are familiar with the kind of decisions we constantly have to make, and some of them have been touched on in the discussion of the purposes above. However, it may be useful to add some further comments, even at the risk of repeating the obvious to those familiar with the methods in question, because experience shows that there are others who may not yet have encountered them.

In each case one has to ask who is making the judgements: from whose perspective are the issues perceived? This is a question not simply of cultural stratification, where the non-poor (including sociologists and economists) make judgements about the identifying criteria which divide the underclass or the poor from the rest of 'respectable' participating society. It is also a question of relative deprivation and the reference

⁵⁰ Reported by, among others, Allardt 1975; Uusitalo 1975; Erikson et al 1987; Vogel et al 1988. There is an extensive body of research material in each country.

groups and criteria used by the poor and excluded as points of aspiration. Just as ineffective demand is an economic concept, so insufficient subjective relative deprivation may be a concept for sociologists concerned with oppressively stratified societies in which the discriminating criteria have not been sufficiently contested to reach agreement (if that is even possible).

[a] What are the appearances of the poor, deprived, non-participating or excluded life-style which are to be used as discriminating criteria for counting the poor? What definition of poverty is implied by the use of these as against other life-style criteria? These are key questions in some of the current debates over the perceptions of visible 'underclasses' or of the 'invisible poor' (if such phenomena exist).

[b] What should be the components of the prescribed minimum 'shopping basket'? These need not be only purchasable consumption items; they may be extended to include inventories of durables, intangible properties, possessions or life experiences. Budget studies, such as those of the University of York's Family Budget Unit, take different sets of components depending on the different kinds of minimum standards for which they are designing budgets; the cultural stratification issues are clear here.

Although I have not noted it as a separate issue for judgement, the temporal dimension of levels of living or deprivation is also particularly important. The shorter the time period at issue, the more limited the basket of goods is often taken to be; the longer (up to a lifetime), the more may be included, up to the whole of expected life experience. But there is nothing inherently connected between time and quantity (except that things wear out and need replacement). Notions of quantity are primarily functions of class-located relative deprivation and not time.

The economic method of discovering the level of income at which people suffer deprivation or live above it by examining their purchasing patterns using indifference curves or S-curves (or the marginal or income elasticity of demand approach) also requires judgments about which commodities are to be taken into account. The method appears technically empirical, but which are to be the significant components is a prescriptive question, subject to covert ideological bias (as is so often the case with apparently technical subjects).

[c] What proportion of the total expenditure of a unit such as a household should be devoted to food, to take as indicating deprivation?

This is the method of arriving at a criterion of deprivation associated with the name of Ernst Engel, and is well known as the basis of the US poverty line. As the abstracts suggest that it is not a method represented at this conference, I hope to offend no one by expanding the comments somewhat critically to illustrate the difficulties which lie between neat conceptualisation and methodological formulation to start with, and implementation by governments at the other end.

The US method involves prescriptive judgements about both the components and costs of a minimum dietary, and also the proportion of total expenditure to devote to food⁵¹. The judgements about the first are subject to all the reservations about prescribing food consumption and expenditure for people whose conventional life-styles may be different. Judgements also have to be made about what proportion of total expenditure on food is to be taken as the Engel coefficient or multiplier. Should it be the same proportion as the average household spends on food, or some other? For example, if one fifth of the expenditure of the average household goes on food⁵², then the multiplier for the minimum food basket could be five. The

⁵¹ Orshansky 1965.

⁵² Department of Employment 1986 table 6.

cost of the minimum food basket is then multiplied by the coefficient to give the cash sum for the minimum income.

In practice, the US government was still in 1986 using the proportion found in 1955 (one third) and the economy food plan components calculated in 1961⁵³, although it is possible that the US population spends a different proportion now (it is around one-fifth in Britain). The US Department of Agriculture's economy food plan components were intended for only temporary or emergency use⁵⁴, and its own survey in 1965 showed that it was nutritionally inadequate⁵⁵ even in terms of dietary opinion at that time. Even spending on food at the level of the USDA low cost food plan, about a quarter higher than the economy plan which is the basis of the US poverty line, was known not to ensure an adequate diet⁵⁶.

Because of its apparent objectivity, the Engel approach has been used to make illuminating international comparisons of levels of living⁵⁷, but it is essentially as prescriptive in its assessment of adequacy as other quasi-relative methods. However, the chicaneries in its official use are instructive and should alert us to similar problems with other methods.

[d] What percentile of mean or median income should be taken as indicating intolerable inequality (as a proxy for deprivation)?

There are many versions of the approach which typically prescribes a percentile or proportion of the income distribution as a measure of minimum income. For instance, in Britain low pay was described as the income of the lowest decile of specified earners or two thirds of the median⁵⁸. We are all familiar with the current uses of deciles of mean or median incomes

⁵³ US Bureau of the Census 1987 p 43.

⁵⁴ Orshansky 1965 p 6.

⁵⁵ Quoted by R A Sinfield 1976 p 9.

⁵⁶ Orshansky 1965 p 6.

⁵⁷ Justice and Peace Commission 1978.

⁵⁸ By, e g, National Board for Prices and Incomes 1971; Royal Commission on the Distribution of Income and Wealth, 1978 p 51; Low Pay Unit 1988 pp 7-9.

to count and compare poverty in Europe and OECD countries, and the arguments about their statistical validity.

But they have two drawbacks. Measures of income inequality by themselves tell us nothing about the adequacy of real levels of living. Not only are they only indirect measures, but poverty defined by percentiles can never be abolished. An independent (and preferably direct) measure of minimum adequacy in each of the contexts in which the measurement is taking place is also invariably needed. If the independent measure showed that in country or region A the participation minimum level required an income 75 per cent of the median, but only 55 per cent in country or region B, then the conventional use of 40, 50 or 60 per cent across countries does not help us to see this, let alone understand it. And the question of the tolerability of any particular percentile of inequality is strictly ideological. Who said 50 per cent was tolerable?

Indeed, the current use of percentiles has consequences as insidiously dangerous for the poor as the use of subsistence in Britain: it forms the prevailing discourse to the exclusion of the direct concepts and measures of poverty⁵⁹. I would ask the conference to give the issue its earnest consideration.

[e] What should be the treatment of the contribution made to their total level of living beyond that provided by minimum disposable cash incomes of the assets and contextual resources available to people?

I have commented above on the need to make this judgement in interpreting the results of attitudinal and deprivation indicator surveys about minimum income adequacy. For instance, a US comparison commented on the personal costs of social services falling on post-tax incomes which elsewhere would have been paid from taxes.

[f] Indicators of necessities, unmet needs, deprivation, exclusions.

⁵⁹ Perhaps that is why the British government found it preferable to use this measure instead of counting the poor by their income level.

This judgement, about what to use or to omit, and how to interpret the resources required to prevent deprivation and social exclusion, may be made wholly or partially by prescription or empirically. Aspects of it were issues argued between Townsend and Mack and Lansley. To summarise, Townsend suggested that empirically determined indicators were vulnerable to false consciousness about people's authentic needs; Mack and Lansley that the precise issue about measuring deprivation was people's own subjective consciousness, whatever other observers thought about it. The fundamental importance of this value conflict about the right to share in society's goods, even the wrong ones, cannot be exaggerated and must be confronted by all poverty researchers today as it has been for over two thousand years⁶⁰.

[g] What must be the minimum size of the majority of the population whose assent to the definitions of indicative necessities [f] validates them?

Mack and Lansley suffered some criticism for their choices — whether to take 51, 66 or 75 per cent of the population. Perhaps strength of assent is also an issue, as it is in other attitudinal surveys. The issue of class cultural stratification is not confronted by simple majorities, though it is certainly present in the diversity of responses. It was clearer in the responses of those who confused the determination of necessities which no one in the population should have to be without, with the question of whether they would pay higher taxes to provide them ("nobody should be without item X, but perhaps not if it means higher taxes to provide it for those people", and so on). Such attitudes also include the version which believes that the poor should not be included in the vote for their benefits — which although incompatible with another version is often held by the same person simultaneously: that only the poor need be consulted on their needs because their aspirations are different (and much more modest).

⁶⁰ Springborg 1981.

Both versions of these middle class prejudices are of course strongly influenced by assumptions about the stratification of needs.

[h] What total number of deprivation indicators must people suffer in order to show that their deprivation is enforced and not a matter of free choice?

The argument about tastes is an old one ("I don't eat a cooked breakfast and they keep coal in the bath"). Rather than argue about specific instances, Mack and Lansley's empiricism is probably the best approach. An enforced lack of one or two socially-defined necessities was quite widely reported across the income distribution, but with three or more deprivations there was a close relationship with low income. Income and not choice was then paramount: "the rich do not choose the life-styles associated with the lack of necessities"⁶¹.

However, the issue of which and how many deprivations are 'free choices' and which are imposed oppressions (sometimes of historical duration leading to conventional acceptance) needs to be kept under constant review. It would be possible to hypothesize a situation where the experience of all individual deprivations was randomised across the whole income distribution. Deprivation would not thereby be diminished in aggregate, but poverty would have been abolished⁶².

CONCLUSIONS

I have reviewed the British history of muddle, not all of it accidental, as a basis for a plea for greater clarity about the purposes for which we define and measure poverty and deprivation, and more openness about the many value judgements which we make in the process of moving from

⁶¹ Mack and Lansley 1985 p 96.

⁶² The point was made by someone writing about public health (I should be glad to be reminded who it was) that trying to break the link between high morbidity and low income might not improve overall morbidity rates but was worth doing in its own right for the sake of the poor who suffered most of it at present.

intellectual conceptualisation to the practical implementation of surveys and even policies. Is the plea quixotic? Should it be addressed at those who fund poverty research as much as at those who carry it out?

Because it may annoy people, the comment about abolishing poverty by randomising deprivation is given as an example of the semantic issue which also needs consideration. I have lost count of the number of research reports I have read which define poverty as some rarefied version of an indirect measure which fits that research paradigm nicely but has only the most tenuous relationship with suffering human experience, or, conversely, some direct approach which is far too vague for research use, let alone policy making.

Why does it matter? First, if there are almost as many variations on the two words as there are researchers, that is no way to advance a science or communicate with policy makers. More seriously, as the British example shows, the discourse is formed by the practitioners and used by the power holders — and I am concerned that we are forming an impotent discourse of statistical deciles which will further disempower the poor. We are far too close to our raw data most of the time to think about our discourse, but we ought to pay more attention to its consequences. Direct definitions and measures should dominate; proxies should be clearly and apologetically labelled as such. To provoke reaction, I offer a couple of definitions.

The condition of *deprivation* means unmet need. It means not having tangible or intangible resources or experiences which are conventionally desired, expected or prescribed. The objective of those inputs of resources is the achievement of the fully autonomous, fully participating adult human being in the society to which he or she belongs (it also follows that society has to be reproduced or this basic objective could not be met: there would be no society for the next generation to participate in). Human needs are everything required to achieve this objective. Any lack in the

resources required which hinder this end from being achieved are deprivations: they are needs which are unmet. The cause of unmet need is lack of all kinds of resources (tangible, intangible, interpersonal, intrapersonal),

The condition of *poverty* means lack of money resources. It is conventionally a much narrower term than deprivation, though it has been used to describe the condition of severe deprivation as well as its cause. To the extent that in our societies money is often (though not necessarily) the chief material resource lacking, the common meaning of poverty remains simply not having enough money to buy the resources required to meet needs. This assumes that such resources can be bought and that there is an accessible market for them, which we know is often not the case (the resources should not be marketed, they aren't purchasable, or the market is inaccessible).

It is worth adding that many would argue that the resources of Being and Loving are more important to meeting *human* needs than are the material resources of Having (I take the terms from the work of Erik Allardt⁶³, which I find persuasive). But the material conditions of life must be met.

To use 'poverty' solely for lack of money may seem to leave no word for the causes of deprivation where the resources are not marketed. But this is an issue in the politics of the distribution of all kinds of tangible and intangible resources, and the term for being without these is *powerlessness*. Powerlessness in the economic or political systems is equivocally addressed in some of the top-down anti-poverty programmes from supranational to local community levels ("make them feel better but don't upset structural things"), but appears less often as a working concept in anglophone statistical research. Yet I think it still deserves as much attention as is nowadays rightly given to gendered or ethnic powerlessness.

⁶³ Allardt 1975, 1976.

The term dependency is used in some contexts for aspects of powerlessness, but what is relevant here are not the normal, expected and desired developmental dependencies of childhood, or the normal but undesired ones of illness, but the imposed and undesired ones of human relationships, personal and political.

The literature so far suggests that if purposive action to combat poverty is to be effective, the problem for poverty research continues to be how to find a plausible unifying model of the connections between these imposed aspects of powerlessness, deprivation and poverty. And if such a model could be articulated in all its complexity at all levels from the experience of large and small groups in the world economy right through to individual experience, we still have to agree how to measure directly each of its constituent elements. There have of course been suggestions for models of the distribution of power and resources on a large scale for a century or more, but have we yet achieved sufficient clarity about our purposes and methods, or consistency between them, to do this on the smaller scale of the individual experience of poverty?

A CLASSIFICATION OF APPROACHES TO DEFINITIONS AND MEASURES OF POVERTY
BY THEIR PRIME PURPOSES.

PRIME PURPOSES:

1. To count the numbers defined as poor in the population.
2. To explain why people appear poor: have they enough money not to behave poor? (This is not the same as explaining *why* they have too little money.)
3. To prescribe a poverty line: a minimum level of money income on which people ought to be able to live and avoid deprivation (as defined by the prescriber) if they spend their money as prescribed.
4. To report a poverty line: a minimum level of money income on which the surveyed population on average thinks it would be able to live and avoid deprivation as it defines it ("just make ends meet").
5. To discover a poverty line: a minimum level of money income on which empirical research shows that the surveyed population manages on average in practice to avoid what it defines as deprivation.

PRINCIPAL MATTERS OF JUDGEMENT IN OPERATIONALISING DEFINITIONS OF POVERTY:

- [a] Appearances of a poor, deprived, non-participating, excluded lifestyle.
- [b] Components of prescribed minimum 'shopping basket' [consumption items]; may be extended to include inventory of possessions or experiences.
- [c] Proportion of total expenditure devoted to food, to take as indicating deprivation [Engel coefficient].
- [d] Percentile of mean or median income to take as indicating intolerable inequality (as a proxy for deprivation).
- [e] Contribution of assets, intangible resources and other non-market consumption items to level of living beyond that provided by minimum disposable cash incomes.
- [f] Indicators of necessities, unmet needs, deprivation, exclusions.
- [g] Required size of majority of population whose assent to the definitions of indicative necessities [f] validates them.
- [h] Total number of deprivation indicators to show deprivation is enforced.

**TABLE SHOWING CLASSIFICATION OF DEFINITIONS OF POVERTY
BY PRIME PURPOSE AND PRINCIPAL MATTERS OF JUDGEMENT.**

Prime Purpose and Judgement:

| <i>Types of Definition or Measure:</i> | <u>Count</u> | <u>Explain</u> | <u>Prescribe</u> | <u>Report</u> | <u>Discover</u> |
|---|--------------------|-------------------|-----------------------------------|---------------|-------------------|
| <u>1. PRESCRIPTIVE STANDARDS:</u> | | | | | |
| Behavioural, lifestyle ⁶⁴ : | <i>appearances</i> | | | | |
| Pseudo-absolute: 'minimum subsistence', 'primary poverty' ⁶⁵ : | | <i>components</i> | | | |
| Quasi-relative: 'Human Needs of Labour', ⁶⁶ budget studies ⁶⁷ : | | | <i>components</i> | | |
| Engel [e.g. US method ⁶⁸]: | | | <i>components; proportion</i> | | |
| Income elasticity: | | | | | <i>components</i> |
| Statistical [e.g. LIS]: <i>percentile</i> | | | | | |

**2. EMPIRICAL
STANDARDS:**

| | | | | | |
|--|--|--|--|--|--|
| Leyden ['Making Ends Meet'; 'Welfare Function of Income', ⁶⁹]; Antwerp subjective poverty line ⁷⁰ : | | | | | <i>contribution</i> |
| Townsend 1979: Mack and Lansley 1985; 1992: | | | | | <i>indicators; majority; number</i> |
| Hypothetical 'empirical democratic': | | | | | <i>[all matters of judgement subject to population survey responses]</i> |

From: House of Commons paper 579, HMSO, London 1989, p 91; revised 10/1992.

⁶⁴ Booth 1899; Rowntree 1901.

⁶⁵ Rowntree 1901.

⁶⁶ Rowntree 1937.

⁶⁷ Bradshaw, Mitchell, Morgan 1987.

⁶⁸ Orshansky 1965.

⁶⁹ Goedhart, Halberstadt, Kapteyn, van Praag 1977.

⁷⁰ Muffels, Kapteyn, Berghman 1990; Deleeck, Van den Bosch 1992.

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**PAYMENT PROBLEMS OR POVERTY?
NORWEGIAN HOUSEHOLDS 1987-1991**

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According to the Norwegian Level of Living Survey (LLS) the incidence of payment problems among persons 16 - 79 years of age (excluding self employed persons) increased from nine per cent in 1987 to 13 per cent in 1991. More than half of those who had payment problems in 1987, also had such problems in 1991. Least frequent were payment problems among middleaged and older couples without children, most frequent among lone parents. Young persons reported more frequent payment problems than older ones did. Even the increase in the incidence of payment problems was higher among younger than among older persons.

A regression model shows that resource variables are more important than expenditures, life phase and life events variables in explaining payment problems both in 1987 and 1991. However, household debt has grown more important during this four-year period. The most important variable when explaining payment problems in 1991 is having payment problems in 1987.

FIRST DRAFT

1. Debt crises or research crises?

In the first half of the nineteen eighties the Norwegian dwelling market was liberalized. Shortly afterwards credit rationing and credit regulations were abolished as well. The combination of low interest rates, high marginal taxes and high inflation favoured those who borrowed money. Household borrowing and consumption increased fast. The demand for housing and the prices for dwellings increased as well. Changes in the tax system, higher interest rates and lower inflation in the second half of the decade made it less favourable to borrow and to be a debtor. Prices for dwellings dropped. At the same time unemployment increased and the wage growth was lower than expected (Lunde & Poppe 1991, Gulbrandsen 1991a and 1991b).

These changes seemed to give Norwegian households a tighter economy in the second half of the nineteen eighties. There was an increase in the non-fulfilment of loan contracts, in the number of bankruptcies, and, in the number of forced sales of dwellings (Gulbrandsen 1989). Various surveys also seem to indicate that the incidence of payment problems was increasing these years (Lunde & Poppe 1991, Gulbrandsen 1991, Level of Living Survey 1987 and 1991).

However, even if most researchers seem to agree that there has been at least some increase in the share of households experiencing payment problems, there is not much agreement on the extent of such problems or how much they have increased. Neither is there much agreement on what causes the payment problems these households are facing.

Lunde & Poppe (1991) have concluded that changes in economic policies (changes in the tax system, deregulation of the credit market etc.) and the growing unemployment have given heavily indebted young households increasing payment problems during the latter half of the nineteen eighties. Gulbrandsen (1991a) has drawn

another conclusion based on the same survey data. He has not been able to find that the economic situation of households has been dramatically weakened or that the debt is of great importance for the capability of the households to manage their economy. He also concludes that payment problems are most common among unemployed persons and lone parents. Couples with children are not worse off than other groups of households.

Lunde & Poppe (1991) have estimated that 160.000 households (about ten per cent of all) have serious payment problems, and, that 120.000 households are indebted, in the sense that they are not able to pay their interests and repayments. Gulbrandsen (1991a) maintains that "only" 100.000 households have serious "economic problems" and that the number of "indebted" households only represent a minor share of these.

Andreassen (1992), on reviewing the analysis of Lunde & Poppe and Gulbrandsen, concludes that Gulbrandsen "probably has the most relevant description and assessment" of the phenomenon. However, he also argues that only data on the distribution of welfare for the same persons at various points of time may bring the research on payment problems and "debt crises" further.

2. Why do people get payment problems?

Payment problems may be explained in different ways. One kind of explanation take for granted that people are rational, that they will adjust their consumption and their investments to their income, or their income to their consumption - as far as they are able to. Any payment problems will be caused by **unforeseen** increases in expenditures, or drop in income. When, for instance, the interest rate on loans on dwellings increases, it may be difficult in the short run to adjust to such an increase in expenditures. Also it may be difficult to safeguard oneself against the economic consequences of income reduction caused by unemployment, divorce, sickness, disability, bereavement etc.

The probability of being exposed to an unforeseen income reduction or increase in expenditures may vary with life cycle phases. This also holds for the households ability to adjust to changes in the economic conditions.

Another kind of explanation emphasizes that people themselves are to be blamed for getting payment problems. Some people are able to plan and get their economy straight, some have difficulties in planning and managing their economy in a rational way. Some people may have greater expectations and may be more demanding concerning their own standard of living than their income permit. Many elderly persons will perhaps compare their actual economic situation with periods in their lives when their economic situation were worse. They may also compare their own old age with that of their parents, and think they are able to live fairly well on a small pension. Younger persons do not have this experience. Many of them may perhaps compare their actual economic standard with what they were used to in their childhood in a fairly well off family. They may feel that it is difficult to make ends meet, even if they have incomes exceeding elderly persons pensions.

Having payment problems is not necessarily the same as being poor. But if the payment problems of a person or a household are caused by a "lack of material resources of a certain **duration** and to such an **extent** that participation in normal activities and possession of amenities and living conditions wich are customary or at least widely encouraged or approved in society, becomes impossible or very limited" (Townsend 1979), then the indicator of payment problems may also be considered an indicator of poverty.

3. Data and the variables

The Level of Living Surveys in 1987 and 1991 provide the data for this analysis. The population for the 1987-survey is non-institutionalized persons aged 16-79 years, and for the 1991-survey non-institutionalized persons 16 years and older. A two-stage sample of 5000 persons was drawn from each of the populations. The municipalities of Norway were stratified with respect to centrality

and the main branches of industry. In the first stage of the sampling procedure a probability sample of 93 municipalities was drawn. In the second stage a probability sample of persons was drawn from the sampled municipalities. Each person has a priori the same probability of being sampled. The sampling procedure resembles simple random sampling.

Data were collected by professionally trained interviewers who visited the participants. The number of respondents in the 1987 survey was 3929, a response rate of 78 per cent. In the 1991-survey the number of respondents was 3755, a response rate of 75 per cent.

The samples for the two Surveys of Level of Living are coordinated with the samples of the Income Distribution Surveys 1986 and 1990. In these surveys detailed data on income and wealth was collected from the tax authorities and from various registers on transfers, for the respondents as well as members of their households. Hence a number of variables describing the income and wealth of the households of the respondents in the Level of Living Surveys can be constructed.

A subsample of the 1987 Survey of Level of Living constitutes a panel. A total of 2147 persons in the 1987 grosssample were included in the 1991 sample. For 1377 persons, or 64 per cent of the panel, we have observations from the Level of Living Surveys both in 1987 and 1991.

In this paper we analyse persons aged 16 - 79 years in households without entrepreneurial income. This is done because it is impossible to distinguish between liabilities connected with their private household and connected with their entrepreneurial activity. But also because it is assumed that the taxassessed income for selfemployed is less valid as a measure of economic resources than income for employed and for pensioners.

The dependent variable in this analysis is a subjective variable indicating payment problems. Respondents were asked: "During the last year has it happened that the household had difficulties with paying running expenditures for food, transport, housing and the

like? Has it happened often, now and then, seldom or never".

The independent variables are in four categories. Three variables: equivalent income, gross financial capital and market value of owned dwelling measure the economic resources of the household. Equivalent income is calculated as income after tax divided by the number of consumption equivalents in the household. Income after tax include all taxable income (without deducting interest on liabilities) and some taxfree transfers like family allowances, student scholarships, housing subsidies. Economic assistance given to recipients of social care is not included. The number of consumption equivalents in the household is calculated by giving each household member a weight: the first adult get weight 1,0, other adults 0,7 and children 0,5. Gross financial capital consists mainly of bank deposits, bearer bonds, shares and other claims.

In the regression model we use a logarithmic transformation of gross financial capital as independent variable. this is because the effect of gross financial capital is not linear. An addition of 10 000 Norwegian kroner (Nkr) for a household with a capital of 500 000 has much less effect on payment problems than an addition of 10 000 Nkr for a household with zero financial capital. Market value of owned dwelling is measured by asking the respondents. Of course these answers give only a gross approximation, still they are better than the value used by the tax authorities.

Three variables measure or indicate costlevel of the household. These are debt or liabilities, rent on dwelling and place of residence. Debt is given on the tax assessment scheme, rent on dwelling is given by the respondents. It does not include interest on debt. Place of residence has four categories: sparsely populated areas, and densely populated areas with number of inhabitants below 20000, 20000 - 100000, and above 100000 (with values 4 - 1 respectively).

Two variables in the regression model measure life phase. We assume that young households have more need of investments, have less consumption capital and perhaps other attitudes and expectations

to consumption. One variable measure the age of the oldest person in the household (it might have been better to take age of main income earner). The other variable measure whether the household is a single parent household.

The last category of independent variables measure life events. We expect that life events might have an effect on the risk of having payment problems. Especially events which are unforeseen, and affect the income - or the expenditures - of the household. To include some event variables we have analyzed the panel from the Level of Living Surveys 1987 and 1991. The family events which we have identified are: a child (aged 16-24 years) moving from her parents home during the period 1987-1991; a person not married or cohabitating in 1987 moving into a pair-relation in 1991; and the opposite movement whether it comes about by divorce, death of a spouse or dissolution of a cohabitating pair.

The last event variable included in the model is the number of weeks the respondent was unemployed in 1990. This variable has some weaknesses because it measures unemployment of only one person in the household, and not necessarily of the main income earner.

4. Young people often have payment problems

Table 1 show the incidence of adult persons living in households experiencing payment problems. Nine per cent of the persons claimed to have had such problems in 1987, 13 per cent in 1991. We also see that the majority of those with payment problems only had such problems "now and then".

The table indicates that the incidence of payment problems is much greater among lone parents than among other household groups. 32 per cent of them reported payment problems in 1987, 40 per cent in 1991. We also see that younger singles and couples without children reported payment problems more often than middleaged and elderly singles and couples without children.

The incidence of payment problems among couples with small children

is somewhat greater than among all persons, but far below that of lone parents.

Most groups seem to have experienced an increase in payment problems between 1987 and 1991. The increase was remarkable among younger singles (from 16 to 25 per cent), younger couples without children (from 11 to 20 per cent), lone parents (from 32 to 40 per cent), middleaged singles (from 8 to 15 per cent) and among couples with small children (from 14 to 20 per cent). Among the elderly part of the population and among middleaged couples without or with grown up children there was no increase in the incidence of payment problems.

5. Economic resources and payment problems

If payment problems are caused by lack of economic resources, we should expect a larger incidence of payment problems among those with low income than among those with high income. We should also expect to find a higher incidence of payment problems among those with only small financial assets than among those with more abundant assets, and, we should expect a lower incidence among those who do not own their dwellings or among owners of dwellings with low market value than among those with dwellings that have higher market value.

Table 2 and table 3 emphasizes this point. Among the 25 per cent of the persons living in the households with the lowest equivalent income (1. quartile) in 1991, 23 per cent had experienced payment problems, among the 25 per cent with the highest equivalent income (4. quartile), only six per cent had payment problems. Among the 25 per cent with the lowest gross financial capital in 1991 the incidence of payment problems was 32 per cent, as against only 1 per cent among the 25 per cent with the highest gross financial capital (table 2).

We also find that 26 per cent of those who own a dwelling at an estimated market value below 300 000 Nkr have experienced payment problems in 1991, six per cent of those who own a dwelling at a

market value of 800 000 Nkr or more. Tenants however, seemed to have a lower incidence of payment problems in 1991 (19 per cent) than the owners with the cheapest dwellings (table 3).

The most important consumer expenditure for many households are housing expenditures. For many owners interests and repayments on liabilities connected to their dwelling weigh heavily in their total household budget. For tenants the rent may play a similar role.

The market value of dwellings, as well as rent on dwellings and other household expenditures vary with place of residence. The price level is higher in the cities than in the more sparsely populated areas.

Hence, if payment problems are caused by high expenditures, we should expect a higher incidence of payment problems among those with high debts or high rents compared to those with lower debts or lower rents. We should also expect a higher incidence of payment problems in the cities than in the sparsely populated areas.

Table 4 shows that the incidence of payment problems were higher among those who paid rents higher than 2 000 Nkr per month in 1991 (27 per cent) than among those who paid less (21 per cent) and higher among those with rents below 2 000 Nkr than among those who did not pay rents (mostly owners). There was also a slightly higher incidence of payment problems among those who lived in cities with more than 100 000 inhabitants (15 per cent) than in sparsely populated areas (10 per cent) (table 5).

There is, however, no clear bivariate correlation between debt and payment problems neither in the 1987 figures nor in the 1991 figures. The incidence of payment problems were not significantly higher among the 25 per cent with the highest debt than among the lowest 25 per cent (table 6). However, table 7 shows that among those with low income (lowest quartile of equivalent income), payment problems seem to go with high debt. In 1991 19 per cent of the persons with the lowest debt experienced payment problems, 32 per cent of the 25 per cent with the highest debt. Among those who

did not belong to the low income group, there was of course a much lower incidence of payment problems. We also see that in 1987 the incidence of payment problems was not much higher among those with the highest debt than among those with the lowest. In 1991 this had changed. Even among those who did not belong to the low income group, the incidence of payment problems was higher among the 25 per cent with the highest debt (11 per cent) than among the 25 per cent with the lowest debt (four per cent).

All in all the tables 2 - 7 seem to indicate that the expenditure variables explain less of the differences in payment problems than the resource variables. The tables also show that the incidence of payment problems has increased in most groups from 1987 to 1991, and especially among those with the smallest economic resources. In 1986 18 per cent in the lowest income group had experienced payment problems, in 1991 23 percent. Among the 25 per cent with the lowest gross financial capital the incidence of payment problems was 20 per cent in 1987, 32 per cent in 1991 (table 2). 10 per cent of those with estimated market price on own dwelling below 300 000 Nkr experienced payment problems in 1987, 18 per cent in 1991 (table 3).

6. Longterm or shorterterm problems?

To what degree are payment problems just temporary, and to what degree are they of a more permanent or longterm character? The panel data in the Level of Living Survey may give us some information on the permanence or recurrence of the payment problems.

Table 8 indicate that more than half of those who had payment problems in 1987 also had such problems in 1991, whereas only one third of those who had payment problems in 1991, had problems also in 1987. Among those who had payment problems both in 1987 and in 1991, only one in seven (14 per cent) reported that they "often" had such problems both years (table 9).

The panel data also make it possible to explore if any individual

or household events taking place between 1987 and 1991 may have caused more or less unexpected income reductions or increases in expenditures and thereby also payment problems. Unemployment seem to be an important cause for payment problems. Among those who reported to have been unemployed in 1990, 18 per cent had payment problems in 1987, 31 per cent in 1991. The longer the period of unemployment, the higher the incidence of payment problems (table 10).

Changes in family composition also seem to have some effect on payment problems. The incidence of payment problems among young adults who left their parents household between 1987 and 1991, increased from five per cent in 1987 to 18 per cent in 1991 (table 10). Some of this increase, however, may be due to the general increase in payment problems among young singles (see table 1, cfr. stable singles in table 10).

The incidence of payment problems among those who married or became cohabitants between 1987 and 1991 seem to have increased somewhat. Among those who were married or cohabitants in 1987 and singles in 1991 there was no increase in payment problems, however. We might expect that those who became lone parents after a divorce, death of a spouse or dissolution of a cohabiting pair between 1987 and 1991 would face payment problems more often in 1991 than in 1987. To test this hypothesis we would have to distinguish those who went from a status as married or cohabitants in 1987 to lone parents in 1991. Unfortunately, the size of the net panel sample does not allow this distinction.

All in all table 10 seem to indicate that unemployment have a greater effect on payment problems than changes in family size.

7. Why people have payment problems. A regression model

In the introduction we have implicitly specified a model for explaining payment problems in which four types of factors are effective. These are: economic resources, costlevel variables, life phase and event variables. The regression model spesified in tables

11, 12 and 13 include only variables of the first three types. Event variables are only included in tables 14 and 15.

In 1991 all variables in the model had a significant effect on payment problems, also debt which had no effect in 1987. A stepwise regression shows that the most important variables in 1991 are gross financial capital and the life phase variables with the first as the most important. In 1987 gross financial capital was also the most important, although not quite so important, and the life phase variables are also important. But in addition equivalent income was among the most important variables in 1987. Cost variables were not among the important variables in 1987. In 1991 debt and place of residence appeared in the stepwise regression, however with only a small contribution to the explained variance (table 11).

We also find that the regression model seems to fit the data better in 1991 than in 1987. Like it is usual with dependent variables of a fundamentally subjective character the model does not explain a very large proportion of the variance. With the 1987-data the model explained 16 per cent of the total variance. This increased to 23 per cent with the 1991-data.

Comparing the coefficients in 1987 and 1991 we find several significant changes. There is a marked change in the effect of equivalent income. The coefficient has decreased from $41E-7$ to $17E-7$, a change in these four years which is clearly significant. An increase in effect is found for the variables which measure aspects of wealth, both gross financial capital and debt. One of the life phase variables, "age of the household" has had a significantly decreasing effect during this period.

We hypothesize that it is easier to explain payment problems among low income households than among households which are well off with a model of the type we present here. That payment problems among households with high income is to a higher degree the result of attitudes, expectations and degree of economic control.

Actually we find that the model explains a larger proportion of the variance among persons in low income households (household income

after tax below 150 000 Nkr) than among other households. This was so especially in 1987 when the model explained 22 per cent of the variance for the low income households against 9 per cent among other households (tables 12 and 13).

The gross picture from the regression is the same for the two income groups as for the whole population. Resource variables seem to be the most important in both groups, followed by the life phase variables. There are however some details which are worth mentioning. Generally we have seen that equivalent income loses importance between 1987 and 1991. We find it remarkable that this decrease is much more marked among persons in low income households. Also the effect of debt, which was nonexistent in both income groups in 1987, increased during these four years and in 1991 it was significant in both income groups. However the increase was most marked in the low income group.

The regression models in tables 14 and 15 include event variables. We expect that events might have an effect on the risk of having payment problems. Especially events which are unforeseen, and affect the income - or the expenditures - of the household. In addition to the event variables the same variables are included as in the regressions above, with one exception. We have not been able to construct a measure of equivalent income, instead we include income after tax.

The coefficients for the resource-, costlevel- and life phase variables are about the same with panel data as with cross-sectional data, most changes are not statistically significant. Only one of the event variables seems to have any significant effect on payment problems. Not unexpectedly it is unemployment. Actually unemployment has an effect about as strong as gross financial capital.

All over the T-values in the regression on the panel data are smaller than in the earlier regressions, due to the much smaller sample in the panel. It might be that dissolution of a pair would have an effect if the sample had been of the same size as the cross-sectional sample.

In the last regression (table 15) we have included whether the household had payment problems in 1987. Are payment problems explained by the economic characteristics of the household at the time of the interview or do households with payment problems have characteristics with a certain stability which are not captured by the other variables included in the model? The regression indicates that this is so. Payment problems in 1987 have a very strong effect on payment problems in 1991. Actually it is the single strongest predictor. It seems to have an additional effect. The variance explained increases from 26 per cent to 34 per cent. The coefficients for the other variables changes very little because of the inclusion of payment problems in 1987.

7. Discussion

In the specification of the model we have included resource-, cost-, life phase, and life event variables. In the first regressions (tables 11, 12 and 13) we have not included event variables. This means that the explanation we present presumes a stationary view of the world. Changes in family, in employment, in housing expenditures and in value of property which change the balance between income and expenditures are not taken into consideration.

The main picture we get from the regression is that first: resource variables and second: life phase variables are the most important explanations for payment problems. But also that cost variables, and especially household debt have grown more important during the four year period we are considering.

It is not unexpected that gross financial capital is the most important variable. A positive financial capital expresses both that the private economy for some time has run with a positive balance and that the household has a reserve that can be used in more difficult times. Another interpretation is that a positive capital expresses something about economic attitudes and behaviour in the household. That these households have attitudes and behaviour which both increase the chances that they will avoid

economic problems and will build up a positive financial capital.

One important question with which we started out was whether payment problems was a result mainly of poverty or was the result of the debtcrisis. We interpret the results of this regression as a support mainly to the resource variables. However the debt of the household has gained some importance from 1987 to 1991.

We find it more important that the regression model indicates that it is not poverty in the sense of low equivalent income that is most important in explaining payment problems. More important variables are financial capital and life phase. We find it remarkable that equivalent income had no effect for the low income group in 1991, while it had an effect in 1987 for this group. One interpretation of this could be that income is a less reliable concept among households with low income. But why is it less reliable in 1991 than in 1987? Or is it so that the event variables has gained importance compared to the resource variables in the turbulent economic situation which has been characteristic of the period after 1987?

Including event variables showed that only unemployment had an effect. Changes in household composition seem to have no effect (at least in this small sample). This means that the effects of changes in household composition on payment problems act through the effect of the changes in the economic situation of the household. When this is not the case for unemployment it might be attributed to the character of the event as largely unforeseen and also closer in time. The other events, f.i. the transition from pair to single, is a transition over a four year period, and perhaps the transition is not that unforeseen. Hence on average there is more room for adaptations to the change both before and after the event.

How shall we interpret the large effect of having payment problems in 1987 irrespective of the actual economic situation of the household? Does this effect reflect attitudes that increase the likelihood of a positive response to the question on payment problems; is payment problems in 1987 irrespective of economic situation in 1991 an indicator of a lower degree of control over

the household economy, or are there other characteristics of the economic situation of the household not included in the model which are captured by the variable payment problems in 1987?

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Table 1

Incidence of payment problems among persons 1) 16-79 years of age by family cycle phase. 1987 and 1991. Per cent

| | 1987 | | 1991 | | N (1991) |
|---------------------------------|-------|--------------|-------|--------------|----------|
| | Often | Now and then | Often | Now and then | |
| Single persons | | | | | |
| 16 - 44 years | 4 | 12 | 11 | 14 | 228 |
| 45 - 66 years | 4 | 6 | 7 | 7 | 122 |
| 67 - 79 years | 1 | 7 | 3 | 4 | 153 |
| Couples without children | | | | | |
| 16 - 44 years | 4 | 7 | 8 | 12 | 181 |
| 45 - 66 years | 1 | 1 | 1 | 1 | 289 |
| 67 - 79 years | - | 2 | 0 | 3 | 202 |
| Couples with children | | | | | |
| 0 - 6 years | 5 | 9 | 6 | 12 | 448 |
| 7 - 19 years | 2 | 4 | 3 | 6 | 432 |
| Lone parents | | | | | |
| children 0 - 19 years | 13 | 18 | 20 | 21 | 92 |
| All persons | 3 | 6 | | 8 | ca. 3500 |

1) Persons in households without entrepreneurial income

Table 2

Incidence of payment problems among persons 1) 16 - 79 years of age by equivalent income and gross finance capital. Quartile groups. 1987 and 1991. Per cent

| | Equivalent income | | | |
|-------------|--------------------------|----------|----------|----------|
| | Quartiles 2) | | | |
| | 1 | 2 | 3 | 4 |
| 1987 | 18 | 9 | 6 | 3 |
| 1991 | 23 | 13 | 8 | 6 |

| | Gross finance capital | | | |
|-------------|------------------------------|----------|----------|----------|
| | Quartiles 3) | | | |
| | 1 | 2 | 3 | 4 |
| 1987 | 20 | 11 | 4 | 1 |
| 1991 | 32 | 12 | 5 | 1 |

N = ca. 700 in each cell.

- 1) Persons in households without entrepreneurial income
- 2) 1987: Q1 (quartile 1) below 63 000 Nkr, 63 000 <= Q2 < 82 000, 82 000 <= Q3 < 103 000, Q4 >= 103 000. 1991: Q1 < 81 000, 81 000 <= Q2 < 106 000, 106 000 <= Q3 < 131 000, Q4 >= 131 000
- 3) 1987: Q1 < 8 500, 8 500 <= Q2 < 51 000, 51 000 <= Q3 < 135 500, Q4 >= 135 500. 1991: Q1 < 12 500, 12 500 <= Q2 < 59 000, 59 000 <= Q3 < 168 000, Q4 >= 168 000

Table 3

Incidence of payment problems among persons 1) 16-79 years of age by estimated market value of dwelling. 1987 and 1991. Per cent

| | Market value of dwelling (1000 Nkr) | | | | |
|-------------|-------------------------------------|---------------|---------|---------|---------------|
| | Tenants | Less than 300 | 300-500 | 500-800 | More than 800 |
| 1987 | 16 | 16 | 10 | 7 | 4 |
| 1991 | 19 | 26 | 14 | 8 | 6 |
| N (1987) | 517 | 179 | 480 | 842 | 712 |

1) Persons in households without entrepreneurial income

Table 4

Incidence of payment problems among persons 1) 16-79 years of age by rent. 1987 and 1991. Per cent

| | Rent per month. Nkr | | |
|-------------|---------------------|---------------|------------|
| | No rent | 2000 and less | Above 2000 |
| 1987 | 6 | 16 | 17 |
| 1991 | 8 | 21 | 27 |
| N (1987) | 2064 | 637 | 170 |

1) Persons in households without entrepreneurial income

Table 5

Incidence of payment problems among persons 1) 16-79 years of age by place of residence. 1987 and 1991. Per cent

| | Place of residence | | | |
|-------------|------------------------|-----------------|--------------|-------------------------|
| | Densely populated area | | | Sparcely populated area |
| | Above 100 000 | 20 000- 100 000 | Below 20 000 | |
| 1987 | 10 | 11 | 9 | 6 |
| 1991 | 15 | 11 | 12 | 10 |
| N (1987) | 747 | 434 | 1321 | 527 |

1) Persons in households without entrepreneurial income

Table 6

Incidence of payment problems among persons 1) 16-79 years of age by debt. Quartiles. 1987 and 1991. Per cent

| | Debt quartiles 2) | | | |
|-------------|-------------------|----|----|----|
| | 1 | 2 | 3 | 4 |
| 1987 | 9 | 8 | 11 | 8 |
| 1991 | 11 | 11 | 15 | 13 |

N = ca. 700 in all cells.

1) Persons in households without entrepreneurial income

2) 1987: Q1 (quartile 1) below 23 000 Nkr, 23 000 <= Q2 < 138 000, 138 000 <= Q3 < 327 000, Q4 >= 327 000. 1991: Q1 < 28 000, 28 000 <= Q2 < 207 000, 207 000 <= Q3 < 480 000, Q4 >= 480 000

Table 7

Incidence of payment problems among persons 1) 16-79 years of age by debt and equivalent income. Quartiles. 1987 and 1991.
Per cent

| | Debt quartiles 2) | | | |
|----------------------------|--------------------------|----------|----------|----------|
| | 1 | 2 | 3 | 4 |
| Low income group 3) | | | | |
| 1987 | 14 | 17 | 24 | 26 |
| 1991 | 19 | 21 | 30 | 32 |
| N (1987) | 351 | 185 | 147 | 73 |
| | | | | |
| Others 4) | | | | |
| 1987 | 4 | 6 | 8 | 6 |
| 1991 | 4 | 8 | 11 | 11 |
| N (1987) | 405 | 573 | 612 | 683 |

1) Persons in households without entrepreneurial income

2) See table 6, note 2

3) Lowest quartile of equivalent income

4) Quartiles 2, 3 and 4 of equivalent income

Table 8

Incidence of payment problems among persons 1) 16 - 79 years of age 1987 and 1991. Panel data. Per cent

Payment problems

| | | |
|------|-------|------|
| Only | Both | Only |
| 1987 | years | 1991 |
| 4,3 | 3,7 | 6,7 |

N=958

1) Persons in households without entrepreneurial income

Table 9

Degree of payment problems among persons 1) 16 -79 years of age who had payment problems both in 1987 and 1991. Panel data
Per cent

Payment problems in 1991

Often Now and then

**Payment problems
in 1987:**

| | | |
|--------------|----|-----|
| Often | 14 | 26 |
| Now and then | 37 | 23 |
| All | | 100 |

N=35

1) Persons in households without entrepreneurial income

Table 10

Changes in household situation and changes in payment problems.
Panel data. 1987 and 1991

| Changes in household situation: | N | Pct with payment problems | |
|--|----------|----------------------------------|-------------|
| | | 1987 | 1991 |
| All households | 958 | 8 | 10 |
| Unemployed last year | 78 | 18 | 31 |
| * 1 - 8 weeks | 35 | 11 | 14 |
| * 9 - 26 weeks | 17 | 12 | 35 |
| * 27 - 52 weeks | 26 | 31 | 50 |
| Changes in family composition | | | |
| * Child moved from home | 83 | 5 | 18 |
| * Single to pair | 62 | 8 | 16 |
| * Pair to single | 55 | 18 | 18 |
| * Stable single | 234 | 9 | 15 |
| * Stable pair | 607 | 6 | 7 |

1) Persons in households without entrepreneurial income

Table 11. Coefficients and T-values in a regression model with payment problems as the dependent variable. Persons in households without entrepreneurial income. 1987 and 1991

| | 1987 | | 1991 | | Sign. 1) |
|----------------------------------|---------|---------|---------|---------|----------|
| | Coeff. | T-value | Coeff. | T-value | |
| Intercept | 2.60 | 35.1 | 2.51 | 37.4 | N.S.1) |
| Equivalent Income | 40.6E-7 | 8.9 | 17.4E-7 | 5.3 | ** 1) |
| Log gross finan- cial capital | 0.06 | 8.8 | 0.15 | 16.5 | ** |
| Marketvalue of dwelling | 0.6E-7 | 2.8 | 0.9E-7 | 2.7 | N.S. |
| Liabilities | -0.4E-7 | -0.7 | -2.1E-7 | -4.3 | ** |
| Rent of dwelling | -3.1E-5 | -1.3 | -5.6E-5 | -3.6 | N.S. |
| Place of residence | 0.056 | 4.3 | 0.051 | 3.5 | N.S. |
| Age of oldest person | 0.0073 | 8.0 | 0.0047 | 6.3 | ** |
| Single parent | -0.46 | -7.2 | -0.43 | -5.4 | N.S. |
| R*R | 0.16 | | 0.23 | | |
| N | 2670 | | 2605 | | |

1) This column shows the significance of the difference between the coefficients for 1987 and 1991. N.S. = Not significant, ** = $p < 0.05$.

Tables 12. Coefficients and T-values in a regression model with payment problems as the dependent variable. Persons in households without entrepreneurial income and with household income after tax below 150 000 Nkr. 1987 and 1991.

| | 1987 | | 1991 | | Sign. 1) |
|--------------------------------------|----------|---------|---------|---------|----------|
| | Coeff. | T-value | Coeff. | T-value | |
| Intercept | 2.20 | 15.1 | 2.46 | 16.7 | N.S.1) |
| Equivalent Income | 55.3E-7 | 5.2 | 2.6E-7 | 0.2 | ** 1) |
| Log gross finan- cial capital | 0.09 | 7.4 | 0.16 | 8.9 | ** |
| Marketvalue of dwelling | 0.45E-7 | 1.1 | 1.5E-7 | 1.1 | N.S. |
| Liabilities | -0.67E-7 | -0.3 | -7.0E-7 | -3.6 | ** |
| Rent of dwelling | 0.47E-5 | 0.1 | -2.1E-5 | -0.8 | N.S. |
| Place of residence | 0.050 | 2.0 | 0.029 | 0.9 | N.S. |
| Age of oldest person in household | 0.0102 | 6.5 | 0.0072 | 4.2 | N.S. |
| Single parent | -0.41 | -3.8 | -0.51 | -3.4 | N.S. |
| R*R | 0.22 | | 0.27 | | |
| N | 938 | | 694 | | |

1) N.S. = not significant, ** = $p < 0.05$

Table 13. Coefficients and T-values in a regression model with payment problems as the dependent variable. Persons in households without entrepreneurial income and with household income after tax above 150 000 Nkr. 1987 and 1991.

| | 1987 | | 1991 | | Sign. 1) |
|-----------------------------------|----------|---------|---------|---------|----------|
| | Coeff. | T-value | Coeff. | T-value | |
| Intercept | 2.97 | 34.2 | 2.66 | 33.7 | ** 1) |
| Equivalent Income | 31.2E-7 | 6.1 | 17.4E-7 | 5.1 | ** 1) |
| Log gross financial capital | 0.03 | 3.5 | 0.14 | 12.8 | ** |
| Marketvalue of dwelling | 0.5E-7 | 2.3 | 0.6E-7 | 1.8 | N.S. |
| Liabilities | -0.77E-7 | -1.3 | -2.2E-7 | -4.5 | * |
| Rent of dwelling | -1.9E-5 | -0.6 | -8.4E-5 | -3.8 | N.S. |
| Place of residence | 0.046 | 3.2 | 0.048 | 3.0 | N.S. |
| Age of oldest person in household | 0.0057 | 4.6 | 0.0037 | 4.5 | N.S. |
| Single parent | -0.45 | -4.7 | -0.31 | -3.1 | N.S. |
| R*R | 0.09 | | 0.18 | | |
| N | 1731 | | 1910 | | |

1) N.S. = not significant, ** = $p < 0.05$

Table 14. Coefficients and T-values in a regression model with payment problems as the dependent variable. Persons in households without entrepreneurial income. Panel data. 1991

| | Coefficient | T-value |
|-----------------------------|-------------|---------|
| Intercept | 2.71 | 21.0 |
| Income after tax | 10.2E-7 | 3.5 |
| Log gross financial capital | 0.12 | 8.5 |
| Marketvalue of dwelling | -0.1E-7 | -0.2 |
| Liabilities | -2.6E-7 | -3.0 |
| Rent of dwelling | -2.6E-5 | -1.3 |
| Place of residence | 0.02 | 1.1 |
| Age of oldest person | 0.0057 | 3.5 |
| Single parent | -0.59 | -4.8 |
| Unemployed | -0.019 | -7.0 |
| Child moved from home | 0.033 | 0.4 |
| Stable single | 0.0002 | 0.0 |
| Single to pair | -0.058 | -0.6 |
| Pair to single | 0.098 | 1.0 |
| R*R | 0.26 | |
| N | 936 | |

Table 15. Coefficients and T-values in a regression model with payment problems as the dependent variable. Persons in households without entrepreneurial income. Panel data. 1991

| | Coefficient | T-value |
|----------------------------------|-------------|---------|
| Intercept | 1.61 | 10.1 |
| Income after tax | 9.8E-7 | 3.6 |
| Log gross finan- cial capital | 0.09 | 6.4 |
| Marketvalue of dwelling | -0.2E-7 | -0.4 |
| Liabilities | -2.5E-7 | -3.1 |
| Rent of dwelling | -0.7E-5 | -0.4 |
| Place of residence | 0.03 | 1.4 |
| Age of oldest person | 0.0039 | 2.5 |
| Single parent | -0.55 | -4.7 |
| Unemployed | -0.016 | -6.4 |
| Child moved from home | -0.078 | -0.89 |
| Stable single | 0.019 | 0.3 |
| Single to pair | -0.025 | -0.3 |
| Pair to single | 0.12 | -0.3 |
| Payment problems in 1987 | 0.35 | 10.7 |
| R*R | 0.34 | |
| N | 934 | |

